THE

McGILL

University Calendar,

AND

EXAMINATION PAPERS.

1876-77.

CORRECTED TO JUNE, 1876.

Montreal:
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ANNUAL CALENDAR

OF

McGILL COLLEGE

AND

UNIVERSITY

MONTREAL.

FOUNDED BY BEQUEST OF THE HON. JAMES McGILL, IN 1811;
ERECTED INTO A UNIVERSITY BY ROYAL CHARTER
IN 1821; AND RE-ORGANIZED BY AN
AMENDED CHARTER IN 1852.

SESSION OF 1876-7.

MONTREAL:

PRINTED FOR THE UNIVERSITY BY J. C. BECKET, 660 CRAIG STREET.

1876.

Soc. Reg. Lond.

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1876/77

BENEFACTORS OF

McGill University, Montreal.

I. ORIGINAL ENDOWMENT, 1811.

THE HONOURABLE JAMES McGILL, by his last will and Testament, under date 8th January, 1811, bequeathed the Estate of Burnside, situated near the City of Montreal, and containing forty-seven acres of land, with the Manor House and Buildings thereon erected, and also the sum of ten thousand pounds in money, unto the "Royal Institution for the advancement of Learning," constituted by Act of Parliament in the Forty-first Year of the Reign of his Majesty, King George the Third, to erect and establish a University or College for the purpose of Education and the advancement of learning in the Province of Lower Canada, with a competent number of Professors and Teachers to render such Establishment effectual and beneficial for the purposes intended, requiring that one of the Colleges to be comprised in the said University, should be named and perpetually be known and distinguished by the appellation of "McGill College."

The value of the above mentioned property was estimated at the date of the bequest at - - - - - - - - - $120,000,

II. WILLIAM MOLSON HALL.

In 1861 the "William Molson Hall," being the west wing of the McGill College buildings, with the Museum Rooms, and the Chemical Laboratory and Class Rooms, was erected through the munificent donation of the founder whose name it bears.

III. ENDOWED CHAIRS.

THE MOLSON CHAIR OF ENGLISH LANGUAGE AND LITERATURE, in 1856, by the Honourable John Molson, Thomas Molson Esq., and William Molson, Esq.—$20,000.

THE PETER REDPATH CHAIR OF NATURAL PHILOSOPHY, in 1871, by Peter Redpath. Esq.—$20,000.

THE LOGAN CHAIR OF GEOLOGY, in 1871, by Sir W. E. Logan, LL.D., F.R.S. and Hart Logan, Esq.—$20,000.

THE JOHN FROTHINGHAM CHAIR OF MENTAL AND MORAL PHILOSOPHY in 1873, by Miss Louisa Frothingham,—$20,000.

IV. EXHIBITIONS AND SCHOLARSHIPS IN ARTS.

THE JANE REDPATH EXHIBITION, $100 annually,—founded in 1868 by Mrs. Redpath of Terrace Bank, Montreal, and endowed with the sum of $1667.

THE GOVERNOR'S SCHOLARSHIP of $100 to $120 annually—founded by subscription of members of the Board of Governors in 1869.

THE McDONALD SCHOLARSHIPS AND EXHIBITIONS, 10 in number—founded in 1871, by William C. McDonald, Esq.—Annual value, $1,250.

THE CHARLES ALEXANDER SCHOLARSHIP for Classics,—founded in 1871 by Charles Alexander, Esq.—Annual value, $120.

THE TAYLOR SCHOLARSHIP—founded in 1871, by T. M. Taylor, Esq.—Annual value $100.

THE SCOTT EXHIBITION,—founded by the Caledonian Society of Montreal in commemoration of the Centenary of Sir Walter Scott, and endowed in 1872 with the sum of $1100 subscribed by members of the Society, and other citizens of Montreal. The Exhibition is given annually in the Department of Practical and Applied Science.

V. ENDOWMENTS OF MEDALS.

In 1856 Henry Chapman, Esq., founded a gold medal to be named the "Henry Chapman Gold Medal," to be given annually in the graduating class in Arts. This Medal was endowed by Mr. Chapman in 1874 with the sum of $700.

In 1860 the sum of £200 presented to the College by H. R. H. the Prince of Wales was applied to the foundation of a Gold Medal, to be called the "Prince of Wales Gold Medal," which is given in the graduating class for Honour Studies in Mental and Moral Philosophy.

In 1864 the "Anne Molson Gold Medal," was founded and endowed by Mrs. John Molson of Belmont Hall, Montreal, for an Honour Course in Mathematics and Physical Science.

In the same year the "Shakespeare Gold Medal," for an Honour Course to comprise and include the works of Shakespeare and the Literature of England from his time to the time of Addison, both inclusive, and such other accessary subjects as the Corporation may from time to time appoint,—was founded and endowed by citizens of Montreal, on occasion of the three hundredth anniversary of the birth of Shakespeare.

In the same year the "Logan Gold Medal," for an Honour Course in Geology and Natural Science, was founded and endowed by Sir William Edmund Logan LL.D., F.R.S., F.G.S., &c.

In 1865 the "Elizabeth Torrance Gold Medal," was founded and endowed by John Torrance, Esq., of St. Antoine Hall, Montreal, in memory of the late Mrs. John Torrance, for the best student in the graduating class in law, and more especially for the highest proficiency in Roman Law.

In the same year, the "Holmes Gold Medal," was founded by the Medical Faculty, as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine, to be given to the best student in the graduating class in Medicine, who shall undergo a special examination in all the branches, whether Primary or Final.

In 1874 a Gold and a Silver Medal were given by His Excellency the Earl of Dufferin, Governor General of Canada, for competition in the Faculty of Arts.

VI. SUBSCRIPTIONS TO THE GENERAL ENDOWMENT.

1856.

John Gordon McKenzie, Esq.	$2000	Honourable John Rose	$600
Ira Gould, Esq.	2000	Charles Alexander, Esq.	600
John Frothingham, Esq.	2000	Moses E. David, Esq.	600
John Torrance, Esq.	2000	Wm. Carter, Esq.	600
James B. Greenshields, Esq.	1200	Thomas Paton, Esq.	600
William Busby Lambe, Esq.	1200	Wm. Workman, Esq.	600
Sir George Simpson, Knight.	1000	Honourable Sir A. T. Galt	600
Henry Thomas, Esq.	1000	Honourable Luther H. Holton	600
John Redpath, Esq.	1000	Henry Lyman, Esq.	600
James McDougall, Esq.	1000	David Torrance, Esq.	600
James Torrance, Esq.	1000	Edwin Atwater, Esq.	600
Honourable James Ferrier.	1000	Theodore Hart, Esq.	600
John Smith, Esq.	1000	William Forsyth Grant, Esq.	600
Harrison Stephens, Esq.	1000	Robert Campbell, Esq.	600
James Mitchell, Esq.	1000	Alfred Savage, Esq.	600
Henry Chapman, Esq.	600	James Ferrier, Jr., Esq.	600
Honourable Peter McGill	600	William Stephens, Esq.	600
John James Day, Esq.	600	N. S. Whitney, Esq.	600
Thomas Brown Anderson, Esq.	600	William Dow, Esq.	600
Peter Redpath, Esq.	600	William Watson, Esq.	600
Thomas M. Taylor, Esq.	600	Edward Major, Esq.	600
Joseph McKay, Esq.	600	Honourable Charles Dewey Day	200
Donald Lorn McDougall, Esq.	600	John R. Esdaile, Esq.	200

1871

William Molson, Esq.	$5000	T. W. Ritchie, Esq.	$600
William C. McDonald, Esq.	5000	A. & W. Robertson, Esqs.	600
Thomas Workman, Esq.	5000	Messrs. Sinclair, Jack & Co.	250
John Frothingham, Esq.	5000	John Reddy, Esq. M.D.	100
J. H. R. Molson, Esq.	2000	Wm. Lunn, Esq.	100
Honourable F. W. Torrance.	1000	Kenneth Campbell, Esq.	100
John McLennan, Esq.	1000	R. A. Ramsay, Esq.	100
B. Gibb, Esq.	600	William Rose, Esq.	50
W. Notman, Esq.	600		

VII. ENDOWMENT FOR DEPARTMENT OF PRACTICAL SCIENCE.

1871

Daniel Torrance, Esq.,	$5000
George Moffatt, Esq.	1000
Charles J. Brydges, Esq.	1000
Robert J. Reekie, Esq.	1000
Hon. James Ferrier (per annum for 7 years)	100
Donald Ross, Esq., (per annum for 5 years,	50
Peter Redpath, Esq., do	400
John H. R. Molson, Esq., do	400
George H. Frothingham, Esq., do	400
T. James Claxton, Esq., (per annum).	100
Charles Gibb, B. A., Donation for Apparatus,	50

VIII. SUBSCRIPTIONS FOR SPECIAL OBJECTS.

Subscriptions for the purchase of Philosophical Apparatus, 1867.

William Molson, Esq.,	$500	John Frothingham, Esq.,	$100
John H. R. Molson, Esq.	500	David Torrance, Esq.,	100
Peter Redpath, Esq.,	500		
George Moffatt, Esq.,	250		$2050
Andrew Robertson, Esq.,	100		

Subscriptions for the erection of a fire-proof Building for the Carpenter Collection of Shells, 1868.

Peter Redpath, Esq.,	$500	Wm. Dow, Esq.,	$100
William Molson, Esq.,	500	Thomas Rimmer, Esq,,	100
Harrison Stephens, Esq.,	100	Andrew Robertson, Esq.,	100
Robert J. Reekie, Esq.,	100	Mrs. Redpath,	100
John H. R. Molson, Esq.,	100	Benaiah Gibb, Esq.,	50
Sir William E. Logan, F.R.S.	100	Honourable John Rose,	30
John Molson, Esq.,	100		
Thos. Workman, Esq., M.P.	100		$2,180
Geo. H. Frothingham, Esq.,	100		

Subscriptions for the Erection of the Lodge and Gates.

William Molson, Esq.,	$100	James A. Mathewson, Esq.,	$100
John H. R. Molson, Esq.,	100	Peter Redpath, Esq.,	100
William Workman, Esq.,	100	G. H. Frothingham, Esq.,	100
Joseph Tiffin, Jr., Esq.,	100	G. D. Ferrier, Esq.,	100
Thos. J. Claxton, Esq.,	100	Geo. W. Warner, Esq.,	100
James Linton, Esq.,	100	John Smith, Esq.,	100
William McDougall, Esq.,	100	Charles Alexander, Esq.,	100
Charles J. Brydges, Esq.,	100	J. Evans, Esq.,	100
George Drummond, Esq.,	100	Henry Lyman, Esq.,	100
Thomas Rimmer, Esq.,	100		
William Dow, Esq.,	100		$2,10[illegible]
John Frothingham, Esq.,	100		

Subscriptions for the internal fittings of the Library and Museum of the Faculty of Medicine 1872.

G. W. Campbell, A.M., M.D.,	$1200	Robert Craik, M.D.,	200
Wm. E. Scott, M.D.,	200	Geo. E. Fenwick, M.D.,	200
Wm. Wright, M.D.,	200	Joseph M. Drake, M.D.,	200
Robert P. Howard, M.D.,	200	George Ross, M.A., M.D.,	50
Duncan C. McCallum, M.D.,	200		

Library and Museum Funds and Subscriptions.

Mrs. G. H. Frothingham, for the arrangement of Dr. Carpenter's Collection of Mazatlan Shells	$233	Wm. Molson, Esq., for Library Fund.	$4000
T. J. Claxton. Esq., £50 sterling for additions to the Museum.	$250	Wm. Molson, Esq., for Museum Fund.	$2000
		John Thorburn, M.A., for the Library.	$90

J. Livesey, Esq., through Dr. Harrington, $50 for the purchase of Mining Models.

Miscellaneous.

Hon. C. Dunkin, M.P., in aid of the chair of Practical Chemistry.	$1,200	T. M. Thompson, Esq., $250 for two Exhibitions in September, 1871, $200 for two exhibitions in 1872.	$450
Principal Dawson, in aid of the same	$1,200	Rev. Colin C. Stewart, for the "Stewart Prize in Hebrew."	$60
P. Redpath, Esq., do do	$266		

XI. ENDOWMENT, HELD IN TRUST BY THE BOARD OF ROYAL INSTITUTION.

The "Hannah Willard Lyman Memorial Fund" contributed by subscription of former pupils of Miss Lyman. and invested as a permanent Endowment, to furnish annually a Scholarship or Prize in a College for Women affiliated to the University; or in Classes for the Higher Education of Women approved by the University. The amount of the fund is at present $1007.

XII. SPECIAL COLLECTIONS OF BOOKS PRESENTED TO THE LIBRARY.

1. The Peter Redpath Collection of Historical Books—presented by Peter Redpath, Esq., of Montreal, 1129 Volumes.
2. The Robson Collection of works in Archaeology and general Literature, Presented by Dr. John Robson of Warrington, England, 3436 Volumes.
3. The Charles Alexander Collection of Classical Works, presented by C. Alexander Esq. of Montreal, 221 Volumes.

XIII. ADDITIONAL DONATIONS 1876.

A Lady, for the purchase of Mining Models	$1000 00
Thos. McDougall, Esq., for the same	35 00
R. A. Ramsay. M.A., B.C.L., to defray the expenses of re-erecting the tomb of the late Hon. James McGill	150 00
Peter Redpath, Esq., J. H. R. Molson, Esq., } continuation of annual Donation to Department of Applied Science	400 00
Mrs. G. H. Frothingham and John J. Frothingham, Esq., continuation of annual Donation of the late G. H. Frothingham, Esq.	400 00
Neil Stewart, Esq., of Vankleek Hill, continues the annual prize in Hebrew, instituted by the late Rev. Colin Stewart	20 00

ACADEMICAL YEAR 1876-7.

SEPTEMBER 1876.

1	Friday	Session of Normal School commences.
2	Saturday	
3	SUNDAY	
4	Monday	
5	Tuesday	
6	Wednesday	Meeting of Normal School Committee.
7	Thursday	
8	Friday	
9	Saturday	Meeting of Governors. Meeting of Faculty of Law.
10	SUNDAY	
11	Monday	
12	Tuesday	
13	Wednesday	
14	Thursday	Meeting of Faculty of Arts.
15	Friday	Matriculation and Supplemental Examinations in Classics. Exhibition and Scholarship Examinations.
16	Saturday	Mat. and Supp. Ex'ns. in Mathematics. Exhibition and Scholarship Ex'ns.
17	SUNDAY	
18	Monday	Matrn. and Supp. Ex'ns. in English, Logic, Mental and Moral Philosophy. Exhibition and Scholarship Ex'ns.
19	Tuesday	Mat. and Supp. Ex'mns. in Modern Languages, Suppl. Exam. in Natural Science, Exhibition and Scholarship Examinations.
20	Wednesday	Meeting of Faculty of Arts. Lectures in Arts commence.
21	Thursday	
22	Friday	
23	Saturday	
24	SUNDAY	
25	Monday	Meeting of Faculty of Arts.
26	Tuesday	
27	Wednesday	
28	Thursday	
29	Friday	
30	Saturday	

OCTOBER 1876.

1	SUNDAY	
2	Monday	Session of Law and Medical Faculties commences. Meeting of Department of Applied Science.
3	Tuesday	
4	Wednesday	Meeting of Normal School Committee.
5	Thursday	
6	Friday	Founder's Birth-Day.
7	Saturday	Matriculation Examination in Medicine.
8	SUNDAY	
9	Monday	The William Molson Hall opened 1862. Meeting of Faculty of Arts.
10	Tuesday	
11	Wednesday	
12	Thursday	
13	Friday	
14	Saturday	Meeting of Governors. Meeting of Faculty of Law.
15	SUNDAY	
16	Monday	
17	Tuesday	
18	Wednesday	
19	Thursday	
20	Friday	
21	Saturday	
22	SUNDAY	
23	Monday	Meeting of Faculty of Arts.
24	Tuesday	
25	Wednesday	Regular Meeting of Corporation. School Examiners appointed. Reports on Scholarships and Exhibitions. Accounts audited.
26	Thursday	
27	Friday	
28	Saturday	
29	SUNDAY	
30	Monday	
31	Tuesday	

NOVEMBER 1876.

1	Wednesday	Meeting of Normal School Committee.
2	Thursday	
3	Friday	
4	Saturday	
5	SUNDAY	
6	Monday	Meeting of Faculty of Arts.
7	Tuesday	
8	Wednesday	
9	Thursday	Annual University Lecture.
10	Friday	
11	Saturday	Meeting of Governors. Meeting of Faculty of Law.
12	SUNDAY	
13	Monday	Meeting of Depart. of Applied Science.
14	Tuesday	
15	Wednesday	
16	Thursday	
17	Friday	
18	Saturday	
19	SUNDAY	
20	Monday	Meeting of Faculty of Arts.
21	Tuesday	
22	Wednesday	
23	Thursday	
24	Friday	
25	Saturday	
26	SUNDAY	
27	Monday	
28	Tuesday	
29	Wednesday	
30	Thursday	

DECEMBER 1876.

1	Friday	
2	Saturday	
3	SUNDAY	
4	Monday	Meeting of Faculty of Arts.
5	Tuesday	
6	Wednesday	Meeting of Normal School Committee.
7	Thursday	
8	Friday	Lectures in Arts terminate.
9	Saturday	Meeting of Governors. Meeting of Faculty of Law.
10	SUNDAY	
11	Monday	Meeting of Depart. of Applied Science.
12	Tuesday	Examinations in Natural Philosophy, 3rd and 4th years. In Classics, 1st and 2nd years.
13	Wednesday	
14	Thursday	Exam'ns in Classics, 3rd and 4th years. In Mathematics, 1st and 2nd years.
15	Friday	Examinations in English and Hebrew.
16	Saturday	Examinations in Applied Science.
17	SUNDAY	
18	Monday	Examinations in Mental and Moral Philosophy and Logic, and in Applied Science.
19	Tuesday	Examinations in Applied Science.
20	Wednesday	Exm. in Natural Science and Chemistry.
21	Thursday	Examinations in French and German.
22	Friday	Christmas Vacation commences.
23	Saturday	
24	SUNDAY	
25	Monday	Christmas-Day.
26	Tuesday	
27	Wednesday	
28	Thursday	
29	Friday	
30	Saturday	
31	SUNDAY	

N. B.—All examinations commence at 9 A.M. or 2 P.M., unless otherwise specified.

JANUARY 1877.

1	Monday	
2	Tuesday	
3	Wednesday	Meeting of Normal School Committee.
4	Thursday	Christmas Vacation ends.
5	Friday	Meeting of Faculty of Arts. Lectures in Arts, Law and Medicine re-commence.
6	Saturday	
7	SUNDAY	
8	Monday	Meeting of Depart. of Applied Science.
9	Tuesday	
10	Wednesday	
11	Thursday	
12	Friday	
13	Saturday	Meeting of Governors. Meeting of Faculty of Law.
14	SUNDAY	
15	Monday	Meeting of Faculty of Arts.
16	Tuesday	
17	Wednesday	
18	Thursday	
19	Friday	
20	Saturday	
21	SUNDAY	
22	Monday	
23	Tuesday	
24	Wednesday	Regular Meeting of Corporation; Examiners appointed; Annual Report to Visitor.
25	Thursday	
26	Friday	
27	Saturday	
28	SUNDAY	
29	Monday	Meeting of Faculty of Arts.
30	Tuesday	
31	Wednesday	

FEBRUARY 1877.

1	Thursday	Theses for Degree of D. C. L. to be sent in to Dean of Faculty of Law.
2	Friday	
3	Saturday	
4	SUNDAY	
5	Monday	Meeting of Depart. of Applied Science.
6	Tuesday	
7	Wednesday	Meeting of Normal School Committee.
8	Thursday	Meeting of Examiners.
9	Friday	
10	Saturday	Meeting of Governors. Meeting of Faculty of Law.
11	SUNDAY	
12	Monday	Meeting of Faculty of Arts.
13	Tuesday	
14	Wednesday	No lectures.
15	Thursday	
16	Friday	
17	Saturday	
18	SUNDAY	
19	Monday	
20	Tuesday	
21	Wednesday	
22	Thursday	
23	Friday	Supplemental Examinations.
24	Saturday	
25	SUNDAY	
26	Monday	Meeting of Faculty of Arts.
27	Tuesday	
28	Wednesday	

MARCH 1877.

1	Thursday	Theses for Degrees of M. D. and B. C. L. to be sent in to Deans of Faculties.
2	Friday	Lectures in Law close.
3	Saturday	
4	SUNDAY	
5	Monday	Meeting of Depart. of Applied Science.
6	Tuesday	
7	Wednesday	Meeting of Normal School Committee.
8	Thursday	Examinations in Law.
9	Friday	Examinations in Law.
10	Saturday	Exam. in Botany, Med. Fac. Meeting of Governors. Meeting Faculty of Law.
11	SUNDAY	
12	Monday	Meeting of Faculty of Arts. Examinations in Law.
13	Tuesday	Examinations in Law.
14	Wednesday	Lectures in Medicine terminate. Examinations in Law.
15	Thursday	Examinations in Law.
16	Friday	Examinations in Law.
17	Saturday	Primary Examination for Degree in Medicine.
18	SUNDAY	
19	Monday	Primary Examination for Degree in Medicine.
20	Tuesday	
21	Wednesd.	Final Examination for Degree of M. D., C. M.
22	Thursday	
23	Friday	
24	Saturday	
25	SUNDAY	
26	Monday	Meeting of Faculty of Arts. Reports of Attendance on Lectures.
27	Tuesday	
28	Wednesday	Lectures in Arts terminate. Meeting of Convocation for conferring Degrees in Law and Medicine.
29	Thursday	B. A. Honour Examinations.
30	Friday	Good Friday. Easter Vacation begins.
31	Saturday	

APRIL 1877.

1	SUNDAY	Easter-Day.
2	Monday	
3	Tuesday	Easter Vacation ends.
4	Wednesd.	Ordinary Examinations, 3rd and 4th years in Natural Philosophy. 1st and 2nd years in Classics.
5	Thursday	
6	Friday	B. A. Honour Examinations.
7	Saturday	Ordinary Examinations in Applied Science. Theses for Degree of M. A. to be sent in to the Dean.
8	SUNDAY	
9	Monday	Ordinary Examinations, 3rd and 4th years in Classics. 1st and 2nd years and Senior year, Applied Science Dept. in Mathematics.
10	Tuesday	
11	Wednesday	Meeting of Faculty of Arts. B. A. and other Honour Examinations. Ordinary Examinations in Applied Science.
12	Thursday	Exn. in English Literature and Rhetoric.
13	Friday	Exn. in Logic, Mental and Moral Philly
14	Saturday	Ordinary Examinations in Applied Science. Meeting of Governors.
15	SUNDAY	
16	Monday	Examinations in French and Hebrew.
17	Tuesday	
18	Wednesday	Ordinary Examinations in Natural Science and Chemistry.
19	Thursday	Ordinary Examin's in Applied Science.
20	Friday	Examinations in German. B. A. and other Honour Examinations.
21	Saturday	Examn. in Applied Science Depart.
22	SUNDAY	
23	Monday	B. A. and other Honour Examinations.
24	Tuesday	Meeting of Faculty of Arts. Meeting of Examiners.
25	Wednesday	Regular Meeting of Corporation.
26	Thursday	B. A. Honour Examinations, *viva voce*.
27	Friday	Meeting of Examiners. Declaration of Results of Examinations.
28	Saturday	
29	SUNDAY	
30	Monday	

N. B.—All Examinations commence at 9 A.M. or 2 P.M., unless otherwise specified.

MAY 1877.

1	Tuesday	Meeting of Convocation for Degrees in Arts.
2	Wednesday	Normal School Committee
3	Thursday	
4	Friday	
5	Saturday	
6	SUNDAY	
7	Monday	
8	Tuesday	
9	Wednesday	
10	Thursday	
11	Friday	
12	Saturday	Meeting of Governors.
13	SUNDAY	
14	Monday	
15	Tuesday	
16	Wednesday	
17	Thursday	
18	Friday	
19	Saturday	
20	SUNDAY	Whit-Sunday.
21	Monday	
22	Tuesday	Examinations for Certificate of Associate in Arts.
23	Wednesday	
24	Thursday	Queen's Birth-Day.
25	Friday	
26	Saturday	
27	SUNDAY	
28	Monday	
29	Tuesday	
30	Wednesday	
31	Thursday	

JUNE 1877.

1	Friday	Exam'ns in Normal School commence.
2	Saturday	
3	SUNDAY	
4	Monday	
5	Tuesday	
6	Wednesday	Normal School Committee.
7	Thursday	
8	Friday	
9	Saturday	Meeting of Governors.
10	SUNDAY	
11	Monday	
12	Tuesday	
13	Wednesday	
14	Thursday	
15	Friday	
16	Saturday	
17	SUNDAY	
18	Monday	
19	Tuesday	
20	Wednesday	
21	Thursday	
22	Friday	
23	Saturday	
24	SUNDAY	
25	Monday	
26	Tuesday	
27	Wednesday	Regular Meeting of Corporation. Report of Normal School.
28	Thursday	
29	Friday	Normal School closes for Summer Vacation.
30	Saturday	

JULY 1877.

1	SUNDAY	
2	Monday	
3	Tuesday	
4	Wednesday	
5	Thursday	
6	Friday	
7	Saturday	
8	SUNDAY	
9	Monday	
10	Tuesday	
11	Wednesday	
12	Thursday	
13	Friday	
14	Saturday	
15	SUNDAY	
16	Monday	
17	Tuesday	
18	Wednesday	
19	Thursday	
20	Friday	
21	Saturday	
22	SUNDAY	
23	Monday	
24	Tuesday	
25	Wednesday	
26	Thursday	
27	Friday	
28	Saturday	
29	SUNDAY	
30	Monday	
31	Tuesday	

AUGUST 1877.

1	Wednesday	
2	Thursday	
3	Friday	
4	Saturday	
5	SUNDAY	
6	Monday	
7	Tuesday	
8	Wednesday	
9	Thursday	
10	Friday	
11	Saturday	
12	SUNDAY	
13	Monday	
14	Tuesday	
15	Wednesday	
16	Thursday	
17	Friday	
18	Saturday	
19	SUNDAY	
20	Monday	
21	Tuesday	
22	Wednesday	
23	Thursday	
24	Friday	
25	Saturday	
26	SUNDAY	
27	Monday	
28	Tuesday	
29	Wednesday	
30	Thursday	
31	Friday	

McGill University Montreal.

The Forty-fourth Session of this University, being the Twenty-fourth under the amended charter, will commence in the Autumn of 1876.

By Virtue of the Royal Charter, granted in 1821 and amended in 1852, the Governors, Principal and Fellows of McGill College, constitute the Corporation of the University; and, under the statutes framed by the Board of Governors, with approval of the Visitor, have the power of granting Degrees in all the Arts and Faculties, in McGill College, and Colleges affiliated thereto.

The Statutes and Regulations of the University have been framed on the most liberal principles, with the view of affording to all classes of persons the greatest possible facilities for the attainment of mental culture and professional training. In its religious character the University is Protestant, but not denominational ; and while all possible attention will be given to the character and conduct of students, no interference with their peculiar religious views will be sanctioned.

I. McGILL COLLEGE.

THE FACULTY OF ARTS.—The complete course of study for the Degree of B. A. extends over four Sessions, of eight months each ; and includes Classics and Mathematics, Experimental Physics, English Literature, Logic, Mental and Moral Science, Natural Science, and one Modern Language, or Hebrew ; all of which subjects are imperative in the first two years of the Course ; but in the third and fourth years options are allowed in favour of the Honour Courses in Classics, Mathematics, Mental and Moral Science, Natural Science and English Literature. Certain exemptions are also allowed to Professional Students.

THE DEPARTMENT OF APPLIED SCIENCE IN THE FACULTY OF ARTS provides professional instruction in Civil Engineering, Mining Engineering and Assaying, and Practical Chemistry, leading to the Degree of Bachelor of Applied Science.

THE FACULTY OF MEDICINE.—The complete course of study in Medicine extends over four Sessions, of six months each, and leads to the degree of M. D., C. M.

THE FACULTY OF LAW.—The complete course in Law extends over three Sessions, of six months each, and leads to the degrees of B.C.L. and D. C. L.

II. AFFILIATED COLLEGE.

Students of Affiliated Colleges are matriculated in the University, and may pursue their course of study wholly in the Affiliated College, or in part in McGill College, and may come up to the University Examinations on the same terms with the Students of McGill College.

MORRIN COLLEGE, *Quebec.*—Is affiliated in so far as regards degrees in Arts and Law.

[Detailed information may be obtained from Rev. John Cook, D. D., Principal.]

III. AFFILIATED THEOLOGICAL COLLEGES.

THE CONGREGATIONAL COLLEGE OF BRITISH NORTH AMERICA, *Montreal.*

THE PRESBYTERIAN COLLEGE OF MONTREAL, in connection with the Canada Presbyterian Church.

Affiliated Theological College have the right of obtaining for their Students the advantage, in whole or in part, of the course of study in Arts, with such facilities in regard to exemptions as may be agreed on.

IV. AFFILIATED SCHOOLS.

THE MCGILL NORMAL SCHOOL provides the training requisite for Teachers of Elementary and Model Schools and Academies. Teachers trained in this School are entitled to Provincial Diplomas.

THE MODEL SCHOOLS OF THE MCGILL NORMAL SCHOOL are Elementary Schools, divided into a Boys' Department, Girls' Department and Primary Schools.

GOVERNING BODY OF THE UNIVERSITY.

VISITOR:—

His Excellency The Right Hon The Earl of Dufferin, Viscount and Baron Clandeboye. Governor General of Canada, &c.

GOVERNORS:—

[*Being the Members of the Royal Institution for the Advancement of Learning.*]

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Peter Redpath, Esq.
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The Hon. Sir Francis Hincks, K. C. M. G., C. B.
The Hon. Luther H. Holton, M. P.
John Molson, Esq.
Joseph Hickson, Esq.

PRINCIPAL:—

John William Dawson, M.A., LL.D., F.R.S., *Vice-Chancellor.*

FELLOWS:—

Ven. Archdeacon Leach, D.C.L. LL.D., Vice-Principal and Dean of the Faculty of Arts.
Henry Aspinwall Howe, LL.D.
The Hon. J. J. C. Abbott, D.C.L., Q.C., Dean of the Faculty of Law.
George W. Campbell, M.A., M.D., LL.D., Dean of the Faculty of Medicine.
Rev. John Cook, D.D., Principal of Morrin College, Quebec.
Alexander Johnson, M.A., LL.D., Professor of Mathematics and Natural Philosophy, Vice-Dean of the Faculty of Arts.
Rev. George Cornish, M. A., LL.D., Professor of Classical Literature.
Rev. Henry Wilkes, M. A., D.D.,LL. D., Principal and Professor of Theology and Church History in the Congregational College of British North America.
Rev. D. H. MacVicar, LL.D., Principal and Professor of Theology in the Presbyterian College of Montreal.
R. A. Ramsay, M, A., B.C.L., Representative Fellow in Arts.
John Reddy, M. D., Representative Fellow in Medicine.
William H. Hicks, Esq. Principal of McGill Normal School.
Rev. John Jenkins, D. D., Chairman of the Protestant Board of School Commissioners for the City of Montreal.
J. J. McLaren, M. A., B.C.L., Representative Fellow in Law.
Edward Holton, B.C.L., Representative Fellow in Law.
Gonsalve Doutre, D.C.L., Professor of Civil Procedure.
Samuel B. Schmidt, M.D., Representative Fellow in Medicine.
John R. Dougall, M.A., Representative Fellow in Arts.
William H. Kerr, Q. C., D.C.L., Acting Dean of the Faculty of Law.
Rev. J. Clarke Murray, LL.D., Professor of Logic.
Robert Craik, M. D., Professor of Chemistry.

[*The Governors, Principal and Fellows, constitute, under the Charter, the Corporation of the University.*]

SECRETARY, REGISTRAR AND BURSAR:—

[*And Secretary of the Royal Institution.*]

William Craig Baynes, B. A., Residence and Office, East Wing, McGill College. Office hours, 10 to 2.

OFFICERS OF INSTRUCTION.

PROFESSORS.:—

JOHN WILLIAM DAWSON, M. A., LL.D., F.R.S.—Principal; Logan Professor of Geology and Professor of Natural History.	East Wing McGill College.
VEN. ARCHDEACON LEACH, D.C.L., LL.D.—Vice Principal, Dean of the Faculty of Arts and Molson Professor of English Literature.	14 University St.
HENRY ASPINWALL HOWE, LL.D.—Emeritus Professor of Mathematics and Natural Philosophy.	405 Sherbrooke Street E.
HON. J. J. C. ABBOTT, D.C.L.—Dean of the Faculty of Law and Professor of Commercial Law.	916 Sherbrooke Street.
GEORGE W. CAMPBELL, M. A., M.D., LL.D.—Dean of the Faculty of Medicine and Emeritus Professor in the Faculty of Medicine.	707 Sherbrooke Street.
WILLIAM E. SCOTT, M.D.—Professor of Anatomy.	43 Beaver Hall Terrace.
WILLIAM WRIGHT, M.D.—Professor of Materia Medica and Pharmacy.	21 Mance St.
ROBERT P. HOWARD, M.D.—Professor of the Theory and Practice of Medicine.	47 Union Avenue;
REV. A. DE SOLA, LL.D.—Professor of Hebrew and Oriental Literature.	73 McGill Col. Av
HON. WILLIAM BADGELY, D.C.L.—Professor of Public and Criminal Law.	64 McGill College Avenue.
R. G. LAFLAMME, D.C.L.—Professor of the Law of Real Estate.	294 Lagauchetiere Street.
CHARLES F. A. MARKGRAF, M.A.—Professor of German Language and Literature,	
D. C. MCCALLUM, M.D.—Professor of Midwifery and Diseases of Women and Children.	45 Union Avenue.
ALEXANDER JOHNSON, M.A., LL.D.—Professor of Mathematics, and Redpath Professor of Natural Philosophy, Vice-Dean of the Faculty of Arts.	70 McGill Col. Av.
REV. GEORGE CORNISH, M.A., LL.D.—Professor of Classical Literature.	149 Metcalf Street.
PIERRE J. DAREY, M.A., B.C.L.—Professor of French Language and Literature.	39 McGill College Avenue.
ROBERT CRAIK, M.D.—Professor of Chemistry.	2 Phillips Square.
EDWARD CARTER, Q.C., B.C.L.—Associate Professor of Criminal Law.	31 Cadieux Street
G. E. FENWICK, M.D., Professor of Surgery.	24 Beaver Hall Terrace.
JOSEPH M. DRAKE, M.D.—Emeritus Professor in the Faculty of Medicine.	19 Beaver Hall Terrace.
N. W. TRENHOLME, M.A., B.C.L.—Professor of Roman Law.	32 Beaver Hall Terrace.
J. S. C. WURTELE, B.C.L.—Associate Professor of Commercial Law.	416 St. Antoine St.
WILLIAM H. KERR, D.C.L.—Professor of International Law. Acting Dean of Faculty of Law.	387 Sherbrooke
GONZALVE DOUTRE, D.C.L.—Professor of Civil Procedure.	37 MacKay Street
GEORGE F. ARMSTRONG, M.A., C.E., F.G.S.—Professor of Civil Engineering and Applied Mechanics.	
GILBERT P. GIRDWOOD, M.D.—Professor of Practical Chemistry.	28 Beaver Hall Terrace.
REV. J. CLARKE MURRAY, LL.D.—Professor of Logic, and John Frothingham Professor of Mental and Moral Philosophy.	78 Victoria Street.
HON. H. F. RAINVILLE, LL.B., (Laval) Associate Professor of Real Estate Law.	36 St. Denis St.
GEORGE ROSS, M.A., M.D.—Professor of Clinical Medicine.	48 Union Avenue
BERNARD J. HARRINGTON, B.A., Ph., D.—Professor of Assaying and Mining, and Lecturer on Chemistry.	Wallbrae Pl., University St.
THOMAS G. RODDICK, M.D.—Professor of Clinical Surgery.	557 Dorchester St.
WILLIAM OSLER, M.D.—Professor of Institutes of Medicine.	26 Beaver Hall Terrace.
ROBERT T. GODFREY, M.D.—Professor of Hygiene and Public Health.	960 St. Catherine
WILLIAM GARDNER, M.D.—Professor of Medical Jurisprudence.	525 St. Joseph St.

LECTURERS:—

JOHN S. ARCHIBALD, B.A., B.C.L.—Lecturer in Criminal and Constitutional Law.	2 Barron Block 162 St. James St.
C. H. MCLEOD, Ba. App. Sc. Lecturer in Geometrical Drawing and Superintendent of Meteorological Observatory.	College Building.
CHRISTOPHER A. GEOFFRION, B.C.L., Lecturer in Roman Law.	184 St. Denis St.
EDMOND LAREAU, B.C.L., Lecturer in Legal History.	293 Notre Dame
FRANCIS J. SHEPHERD, M.D., Demonstrator of Anatomy.	
PHILIP P. CARPENTER, Ph., D.—Lecturer in Malacology and Honorary Curator of Collection of Mollusca.	506 Guy Street.
ARCHIBALD DUFF, M.A., Lecturer in Mathematics, Dept. App. Science.	

JOHN ANDREW, Instructor in Elocution.	29 Courville St.
FREDERICK BARNJUM, Instructor in Gymnastics.	7 Torrance Ter.

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Faculty of Arts.

The Principal (Ex-officio).

Professors :—Leach.	Professors :—Cornish.
De Sola.	Darey.
Dawson.	Armstrong.
Markgraf.	Murray.
Johnson.	Harrington.

Dean of the Faculty :—Ven. Archdeacon Leach, D.C.L., LL.D.

Vice-Dean :—Alexander Johnson, LL.D.

Librarian :—Professor Markgraf.

[Contents.—*Course of Study*, §I. ; *Matriculation*, &c., §II. ; *Exhibitions*, &c., §III. : *Examinations*, &c., §IV. ; *Exemptions*, &c., §V. ; *Medals*, &c., §VI. ; *Licensed Boarding houses*, §VI*. ; *Attendance*, &c., §VII. ; *Library*, &c., VIII. ; *Fees*, &c., §IX. ; *Courses of Lectures*, §X.]

The next Session of this Faculty will commence on September 15th 1877 and will extend to April 30th. 1877.

§I. COURSE OF STUDY.

1. Undergraduates are arranged according to their standing, as Students of the First, Second, Third and Fourth Years ; and are required to attend all the Courses of Lectures appointed for their several years, under the Regulations as to attendance and conduct stated in §VII. The only exceptions are those in favor of Honour and Professional Students, stated in §V.

ORDINARY COURSE FOR THE DEGREE OF B. A.

First Year.—Classics ; French or German ; English Language and Literature ; Pure Mathematics ; History ; Elementary Chemistry.

Second Year.—Classics ; French or German ; Logic and Elementary Psychology ; Pure Mathematics ; Botany.

Third Year.—Classics ; Rhetoric ; Moral Philosophy ; Mixed Mathematics ; Experimental Physics ; Zoology.

Fourth Year.—Classics ; English Literature ; Mental Philosophy ; Mixed Mathematics ; Experimental Physics ; Mineralogy and Geology.

Undergraduates are required to study either French or German for two years, [viz., in the First and Second Years] taking the same language in each year. Any Student failing to pass the Examination at the end of the Second Year, will be required to pass a Supplemental Examination, or to take an additional Session in the Language in which he has failed. In addition to the obligatory, there are other Lectures, attendance on which is optional.

The Lectures in Modern Languages will be so arranged that Students competent and desirous to take in the same years the Lectures in French and in German, may do so.

Students who intend to join any Theological School, on giving written notice to that effect at the beginning of the First Year, may take Hebrew instead of French or German.

The Faculty may permit any Student to take Spanish instead of French or German.

2. At the examination for the Degree of B. A., Honours are given in the following subjects, for which special Honour Courses are provided :—[For details see under §X.]

1. *Classical Languages and Literature.*
2. *Mathematics and Physics.*
3. *Logic and Mental and Moral Philosophy.*
4. *English Language, Literature and History.*
5. *Geology and other Natural Sciences.*

Students taking B. A. Honours in any of the above Courses, may omit two of the ordinary subjects in the Degree Examination, under the conditions stated in §IV., 4.

Honours are given in the above subjects in the Third Year also, and in Mathematics in the First and Second Years as well.

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§ II. MATRICULATION AND ADMISSION.

1. Candidates for Matriculation as Undergraduates are required to present themselves to the Dean of the Faculty, on the 15th of September, for examination; they may, however, enter after the commencement of the Session, if, on examination, found qualified to join the classes.

The subjects of examination for entrance into the First Year, are Classics, Mathematics, and English.

In Classics.—Latin Grammar, Greek Grammar, and one easy Latin and one easy Greek Author. The authors recommended are Cæsar; Sallust; Virgil (Æneid, B. I.); Xenophon (Anabasis, B. I.); Homer (Iliad, B. I.)

In Mathematics.—Arithmetic; Algebra, to Simple Equations, inclusive; Euclid's Elements, Books, I., II., III.

In English.—Writing from Dictation.

2. Candidates not matriculated in the University may be admitted to the standing of students of the Second Year, provided that they pass the Sessional Examinations of the First Year, or an examination in the following subjects at the beginning of the Second Year :—

In Classics.—*Greek.*—Homer, Book VI.; Xenophon, Anabasis, Book I.; Grammar, and Prose Composition.

Latin.—Virgil, Æneid, Book VI.; Cicero, Orations against Catiline; Grammar and Prose Composition.

In Mathematics.—

Euclid.—Books I., II., III., IV., VI., with defs. of Book V. (omitting propositions 27, 28, 29, of Book VI.).

Algebra.—To end of Quadratic equations (Colenso's Alg.).

Trigonometry.—Galbraith and Haughton's Trigonometry, Chaps. 1, 2, 3, 4, 6, to beginning of numerical solution of plane triangles.

Arithmetic.—Ordinary rules.—Proportion, Interest, Discount, &c., Vulgar and Decimal Fractions, Square Root.

In English Literature.—English Grammar and Composition.

In French or German.—Grammar and easy Translation.

[Candidates who are unable to pass the entrance Examination of the Second Year in Modern Languages, may be allowed to enter, but will be required to take additional lectures in one Modern Language in the Second Year, or to take the subject in both the Second and Third Years.]

Students of other Universities may be admitted, on the production of Certificates, to a like standing in this University, after examination by the Faculty.

PARTIAL STUDENTS.—Candidates for Matriculation as Partial students, taking three or more Courses of Lectures, or as students in any Special Course, will be examined in the subjects necessary thereto, as may from time to time be determined by the Faculty.

OCCASIONAL STUDENTS.—Persons desirous of taking one or two Courses of Lectures as Occasional students, may apply to the Dean for entry in his Register, and may procure from the Secretary tickets for the Lectures they desire to attend.

Every student is expected to present, on his entrance, a written intimation from his parent or guardian, of the name of the minister of religion, under whose care and instruction it is desired that the student shall be placed, who will thereupon be invited to place himself in communication with the Faculty on the subject. Failing such intimation from the parent or guardian, the Faculty will endeavour to establish such relations.

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§ III. SCHOLARSHIPS AND EXHIBITIONS.

1. A Scholarship is tenable for *two* years. An Exhibition for *one* year.

2. Scholarships are open for competition to Students who have passed the University Intermediate Examination, provided that not

more than three Sessions have elapsed since their Matriculation ; and also to candidates who have obtained what the Faculty may deem equivalent standing in some other University.

3. Scholarships are divided into two classes :—[1] *Science* Scholarships ; [2] *Classical and Modern Language* Scholarships. The subjects of Examination for each are as follows :—

Science Scholarships.—Differential and Integral Calculus ; Analytic Geometry; Plane and Spherical Trigonometry ; Higher Algebra and Theory of Equations ; Pure Mathematics, (as in Ordinary Course) ; Botany ; Chemistry ; Logic.

[For division of these subjects, see page 18.]

Classical and Modern Language Scholarships.—Greek ; Latin ; English Composition ; English Language and Literature ; French.

4. Exhibitions are assigned to the First and Second Years.

First Year Exhibitions are open for competition to candidates for entrance into the First Year.

Second Year Exhibitions are open for competition to Students who have passed in all the subjects of the First Year Sessional or Supplemental Examinations, provided that not more than two years have elapsed since their Matriculation ; and also to candidates for entrance into the Second Year who, on Examination, are found qualified to join the Second Year Classes in French or German, or (for Theological students only) the Senior Year in Hebrew.

The subjects of Examination are as follows :—

First Year Exhibitions.—Classics, Mathematics, English.

Second Year Exhibitions.—Classics, Mathematics, English Language, Chemistry.

5. The First Year Exhibition Examination will be regarded as a Matriculation Examination.

The Second Year Exhibition Examination will be regarded as a Matriculation or Supplemental Examination in the subjects appointed.

6. No Student can hold more than one Exhibition or Scholarship at the same time ; but four of the First Year Exhibitioners will be granted exemption from the Sessional fees throughout their College Course, under Presentation Scholarships from the Governor General. (See below.)

7. Exhibitions and Scholarships will not necessarily be awarded to the best answerers at the Examinations. Absolute merit will be required.

8. If in any one College Year there be not a sufficient number of Candidates showing absolute merit, any one or more of the Exhibitions or Scholarships offered for competition may be transferred to more deserving Candidates in another Year.

9. A successful Candidate must, in order to retain his Scholarship or Exhibition, proceed regularly with his College Course to the satisfaction of the Faculty.

10. The annual income of the Scholarships or Exhibitions will be paid in four instalments, viz. :—in October, December, February and April, about the 20th day of each month.

11. The Examinations will be held at the beginning of every Session.

EXHIBITIONS AND SCHOLARSHIPS TO BE OFFERED IN 1876

There are at present fourteen Scholarships and Exhibitions.

THE JANE REDPATH EXHIBITION, founded by Mrs. Redpath, of Terrace Bank, Montreal :—value, $100 yearly.

THE MCDONALD SCHOLARSHIPS AND EXHIBITIONS, ten in number, established by W. C. McDonald, Esq., Montreal :—value, $125 each, yearly.

THE GOVERNORS' SCHOLARSHIP, established by the Board of Governors:—value about $120 yearly

THE CHARLES ALEXANDER SCHOLARSHIP, founded by Charles Alexander, Esq., Montreal, for the encouragement of the study of Classics and other subjects :—Value, $120 yearly.

THE TAYLOR SCHOLARSHIP OR EXHIBITION, established by T. M. Taylor, Esq., Montreal, value, $100 yearly.

The following will be offered at the Examinations commencing September 15th, 1876, under the regulations stated.

First Year.

FOUR EXHIBITIONS.—Two of $125, two of $100. The examinations will be in the following Subjects :—

Greek.—Homer, Iliad, bk. I. ; Xenophon, Anabasis, bk. I. ; Lucian, Charon.

Latin.—Cicero, Pro Lege Manilia ; Livy, bk. V., chaps. I.—XXV. ; Horace, Odes, bk. I.

Text Books.—Hadley's Elements of Greek Grammar.—Arnold's Greek Prose Composition, Exercises 1 to 25. Dr. Wm. Smith's Smaller Latin Grammar, and Principia Latina, Part IV.

Mathematics.—Euclid, bk. I., II., III., IV.; Algebra to end of Harmonical Progression (Colenso). Arithmetic.

English.—English Grammar and Composition.—(Bain's Grammar, as far as Derivation.) Special exercises in Grammar and Composition.

Additional Exhibitions may be given in the First Year, should there not be candidates in the Second and Third Years.

Second Year.

THREE EXHIBITIONS.—Two of $125 each, and one of $100. The Examinations will be in the following subjects :—

Greek.—Homer, Iliad, bk. VI., and Odyssey, bk. IX. ; Xenophon, Hellenics, bk. I. ; Arrian, bk. III.

Latin.—Virgil, Æneid, bk. VI.; Livy, bk. V., chaps. XXVI.—LV.; Horace, Odes, bk. III.; Cicero, Select Letters (Pritchard & Eernard, Clarendon Press Series).

Text Books.—Dr. William Smith's History of Greece. Liddell's History of Rome. Hadley's Greek Grammar. Smith's Student's Latin Grammar. Arnold's Greek Prose Composition. Smith's Principia Latina, Parts IV. and V. (A special paper will be set in Grammar and History.)

Mathematics.—The Mathematics (Ordinary and Honour) of the First Year.

English Literature.—Bain's Grammar; Latham's Hand-Book, Prosody;—Special exercises in Grammar and Composition.

Chemistry.—The metallic Elements as in Wilson's Elementary Chemistry.

Third Year.

FOUR SCHOLARSHIPS.—Three of $125 yearly and one of $120.

Two of these will be given on Examinations in Science, as follows:—one in Mathematics and one in Natural Science:—

1. *Mathematics.*—Differential Calculus (Hall), Chaps. 1 to 8 inclusive, Chaps. 12 and 14. Integral Calculus (Hall, chaps. 1 to 6 inclusive). Analytic Geometry (Salmon's Conic Sections). Hind's Plane and Spherical Trigonometry. Salmon's Modern Higher Algebra, (first six chapters). Todhunter's Theory of Equations. All the pure Mathematics of Ordinary Course with remainder of Drew's Conic Sections and of Colenso's Algebra [Part I.]. *Logic*, as in Whately's Logic, Books II. and III.

2. *Natural Science.—Botany*, as in Gray's Structural and Systematic Botany. *Canadian Botany*, including a practical acquaintance with all the orders of Phænogams and Acrogens. *Chemistry*, as in Wilson's Elements. *Logic*, as in Whately's Logic, Books II. and III.

Two will be given on an Examination in Classics and Modern Languages, as follows:—

Classics.—Greek.—Euripides, Medea; Demosthenes, the Olynthiacs; Xenophon, Hellenics, bk. I.; Herodotus, bk. VIII.; Thucydides, bk. I.

Latin.—Horace, Satires, bk. I., and Epistles, bk. I.; Virgil, Georgics, bk. I.; Terence, Adelphi; Tacitus, Annals, bk. I.; Cicero, Select Letters. [Vol. I. Teubner Series.]
Greek and Latin Prose Composition.

History.—Text Books.—Rawlinson's Manual of Ancient History; Smith's Greece; Liddell's Rome.

English Language and Literature.—Spalding's English Literature; Bacon's Essays; Klipstein's Anglo-Saxon Grammar; Trench's Study of Words; Trench's English, Past and Present.

English Composition.—(High marks will be given for this subject, in order to encourage the practice of it, after the models of the best writers.

French.—Racine, Britannicus, Andromaque, Iphigenie. De Fivas' Grammaire des Grammaires. Translation from English into French.

EXEMPTIONS FROM FEES UNDER PRESENTATION SCHOLARSHIPS, &c.

A number of these are in the gift of Benefactors, and entitle the students holding them to Exemption from the Sessional Fees in the Faculty of Arts. Sixteen have been placed by the Governors at the disposal of His Excellency the Governor General. Candidates must pass the usual Matriculation Examination

[By command of His Excellency four of these Exemptions will be offered for competition in the First Year Exhibition Examinations of the ensuing session.]

Eight Exemptions from fees may be granted by the Board of Governors, from time to time, to the most successful students who may present themselves as candidates. By order of the Board one of these is given annually to the *Dux* of the High School, and of any other Academy or High School, sending up in one year three or more candidates competent to pass creditably the Matriculation Examination.

In the event of any Academy or High School in the Province of Quebec offering for competition among pupils an Annual Bursary in the Faculty of Arts, of not less than $80, the Governors will add the amount of the fees of tuition thereto.

An Exemption from fees may be given annually to any teacher holding the Model School or Academy Diploma of the McGill Normal School, recommended by the Principal and Professors of the School, and passing creditably the Matriculation Examination in Arts.

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§ IV. EXAMINATIONS.

COLLEGE EXAMINATIONS.

1. There are two Examinations in each year; one at Christmas, and the other at the end of the Session. In both of these, students will be arranged according to their answering as 1st Class, 2nd Class, and 3rd Class.

In the Fourth Year only, the University Examination for B. A. takes the place of the Sessional Examination.

2. Students who fail in any subject in the Christmas Examinations, are required to pass a Supplemental Examination in that subject before admission to the Sessional Examinations.

3. Students who fail in one subject in the Sessional Examinatons are required to pass a Supplemental Examination in that subject, Should they fail in this, they will be required in the following Session to attend the Lectures and pass the Examination in the subject in which they have failed, in addition to those of the Ordinary Course, or to pass the Examination alone without attending Lectures, at the discretion of the Faculty.

4. Failure in two or more subjects at the Sessional Examinations involves the loss of the Session. The Faculty may permit the Student to recover his standing by passing a Supplemental Examination at the beginning of the ensuing Session. For the purpose of this Regulation, Classics and Mathematics are each regarded as two subjects.

5. The time for the Supplemental Examination will be fixed by the Faculty; and such Examination will not be granted at any other time except by special permission of the Faculty, and on payment of a fee of $5.

UNIVERSITY EXAMINATIONS.

I. FOR THE DEGREE OF B. A.

There are three University Examinations :—The *Matriculation*, at entrance ; the *Intermediate*, at the end of the Second Year ; and the *Final*, at the end of the Fourth Year.

1. The subjects of the Matriculation Examination are stated in Section II.

2. In the Intermediate Examination, the subjects are Classics and Pure Mathematics, Logic, and the English Language, with one other Modern language, or Botany. Theological Students are allowed to take Hebrew instead of a Modern language. The subjects for the Examination of 1877 are as follows :—

Classics.—Greek.—Polybius, Book III., Chaps. XX. to LX.
Latin.—Cicero, De Imperio Cn. Pompeii.
Latin Prose Composition.

Mathematics.—Arithmetic.
Euclid, Books I., II., III., IV., VI., and defs. of Book V.
Algebra to Quadratic Equations inclusive.
Trigonometry, including use of Logarithms.

Logic.—Whately's Logic, Books II. and III.

English.—Spalding's History of English Literature.
An English Essay.

With one of the following : —

1. *Botany and Vegetable Physiology.*—Structural and Systematic Botany, as in Gray's Text-Book, omitting the Description of the Orders.
2. *French.*—MOLIERE.—l'Avare. RACINE.—Andromaque, Esther; History of French Literature from its commencement to the end of the 17th century (as in Bonnefon); Translation into French.
3. *German.*—Schmidt's German Guide. Adler's Reader. Translation into German.
4. *Hebrew.*—Grammar to the end of the Irregular Verbs. Translation from the Book of Genesis. Exercises,—Hebrew into English, and English into Hebrew.

3. For the Final Examination six subjects are appointed, namely:—[1] Classics, [2] Mixed Mathematics, [3] Mental and Moral Philosophy, [4] Natural Science, [5] Experimental Physics, [6] One Modern Language and Literature (or Hebrew), with History. Every candidate must pass in four of these, namely:—Classics and Mixed Mathematics, which are obligatory; and any two of the remaining subjects, at his option. The subjects for 1877 are as follows:—

1. *Classics.*—Greek.—Herodotus.—Book IX.
   Aeschylus.—Prometheus Vinctus.
   Latin.—Tacitus.—The Annals, Book II.
   Juvenal.—Satires. VIII. and X.
   Latin Prose Composition.
   General Paper in Grammar and History.
2. *Mathematics.*—Mechanics, Hydrostatics, Optics, Astronomy } As treated in Galbraith and Haughton's Manuals.

[Except in the case of Exemptions to Professional Students as stated in §V.]

3. *Mental and Moral Philosophy.*—Murray's Outline of Hamilton's Philosophy, Stewart's Outline of Moral Philosophy, Pt. II
4. *Natural Science.*—Geology and Mineralogy, as in Dana's Geology and Manual of Mineralogy.—The Zoology, Botany and Chemistry necessary to the study of the books above named; or as in Dawson's Hand-book of Zoology; Gray's Structural and Systematic Botany, and Wilson's Inorganic Chemistry.
5. *Experimental Physics.—Electricity.*—Statical and Dynamical, including:—Electro-Magnetism.—Magneto-Electricity.—Thermo-Electricity.—Diamagnetism.—Electric Measurements.—Practical Applications to Telegraph,—&c. *Magnetism.—Acoustics,*—Theory of Undulations.—Production and Propagation of Sound,—Vibrations of Strings, Rods, and Plates,—Vibrations of Fluids,—Musical sounds.
6. *History and English Literature.*—Smith's Student's Gibbon.—Smith's Student's Hume.—Marsh's Hand-book of the English Language and Collier's History of English Literature.

Or instead of History and English, candidates may take one of the following:—

(a) *History and French.*—History as above. The course of French for the Fourth Year.—Bossuet, Discours sur l'Histoire Universelle ; Boileau, Art poetique ; Translation into French, and French Composition.

(b) *History and German.*—History as above. Schiller, Geschichte des 30 jahrigen Krieges ; Goethe, Iphigenie auf Tauris ; General paper on Grammar ; Translation into German, and German Prose Composition.

(c) *History and Hebrew.*—(Theological Students only.) History as above. Hebrew Grammar ; Translation from first four chapters of Isaiah ; any three of the Psalms ; the Chaldaic portions of the Scriptures ; Targum of Onkelos on Genesis, Chap. I. ; Modern Hebrew Poetry, Halevi or Gabirol.

Exemptions for Candidates for Honours in the Third Year.

Candidates for Honours who, at the Sessional Examination of the Second Year, have passed in the First Class in the subjects in which they propose to take Honours, and not below Second Class in the others, may on application to the Faculty be allowed the following exemptions :—

They may in the Lectures and Examinations of the Third Year omit any one of the following subjects not immediately connected with that in which they study for Honours :—(1) Greek, (2) Latin, (3) Optics and Astronomy, (4) Rhetoric, (5) Mental and Moral Philosophy, (6) Experimental Physics, (7) Zoology.

The particular exemption desired must be stated to the Faculty in the application of the candidate, and no change can be made subsequently.

The candidate must pursue the Honour course selected to the satisfaction of the Professor, and must pass the Examination therein.

The above exemptions shall be granted only with reference to Honour subjects in which regular courses of Lectures are delivered in the Third Year.

Exemptions for Candidates for B. A. Honours.

4. Candidates for B. A. Honours, who at the Third Year Sessional Examinations have been placed in the 1st or 2nd Class in any two of the six subjects appointed for the Final Examination, are entitled to the following privileges :—

[1] They may claim to have the Third Year Examination in these two subjects regarded as a B. A. Examination in the same. [This amounts to exemption at the ordinary B. A. Examination from two of the subjects required above.]

[2] They are required to attend the Ordinary Lectures of the Fourth Year in two subjects only. These must be the subjects in which they are to pass the ordinary B. A. Examination, if Lectures are delivered in them ; if not, the choice is left to the Candidate.

No Student shall be entitled to the above privileges unless his attendance on Lectures in the Fourth Year, and progress in the subject in which he is a Candidate for Honours, shall be satisfactory to the Professor : nor unless he shall have obtained a certificate of creditable answering in the Honour Examinations.

2 FOR THE DEGREE OF M. A.

Bachelors of Arts, of at least three years 'standing, are entitled to the degree of Master of Arts after such examination and exercises as may be prescribed by the Corporation. The Regulation at present is, that the Candidate shall prepare a Thesis on some literary, scientific or professional subject, approved by the Faculty. Such Thesis shall be reported on by the Faculty to the Corporation before the granting of the Degree.

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§V. SPECIAL PROVISIONS FOR PROFESSIONAL STUDENTS.

1. LAW AND MEDICAL STUDENTS.

1. Students of the Third and Fourth Years, matriculated in the Faculties of Law or Medicine of this University, are entitled to the following exemptions :—

In the Third year they may omit the Lectures and Examinations in Astronomy and Optics, and in any one of the following subjects : —Zoology, Experimental Physics or Rhetoric.

In the Lectures of the Fourth year they may omit Greek ; and also Geology or Experimental Physics. At the Christmas Examinations of the Fourth Year, they may omit Astronomy and Optics.

In the Ordinary B. A. Examinations, they may, in Classics, pass in Latin alone ; and in Mixed Mathematics, in Mechanics and Hydrostatics alone.

2. To be allowed these privileges in either year, they must give notice at the commencement of the Session to the Dean of the Faculty of their intention to claim exemptions as Professional Students, and must produce at the end of the Session Certificates of attendance on a full course of Professional Lectures during the year for which the exemptions are claimed.

2. STUDENTS OF AFFILIATED THEOLOGICAL COLLEGES.

1. Such Students, whether entered as Matriculated or Occasional, are subject to the regulations of the Faculty of Arts, in the same manner as other students.

2. The Faculty will make formal reports to the Governing body of the Theological College, to which any such Students may belong, as to :—[1] their conduct and attendance on the classes of the Faculty ; and [2] their standing in the several examinations ; such reports to be

furnished after the Christmas and Sessional Examinations, severally, if called for.

3. Matriculated Students are allowed no exemptions in the course for the degree of B. A., till they have passed the Intermediate Examination; but they may take Hebrew in the First and Second Years, instead of Modern languages.

4. In the Third and Fourth Years they are allowed exemptions from the following subjects :—

In the Third Year, they may omit Astronomy and Optics, and Rhetoric, with Experimental Physics or Zoology.

In the Fourth Year, they may omit English Literature with Experimental Physics or Geology.

5. Certificates of attendance on the full course of lectures in the Theological College, during the year for which the exemptions are claimed, must be produced by Students who avail themselves of these exemptions, before presenting themselves for Examination.

[No Student will be allowed in the same session both Professional and Honour Exemptions.]

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§ VI. MEDALS, HONOURS, PRIZES AND CLASSING.

1. Gold Medals will be awarded in the B. A. Honour Examinations to Students taking the highest Honours of the First Rank in the subjects stated below, and who shall have passed creditably the Ordinary Examinations for the Degree of B. A.

The *Chapman Gold Medal*, for the Classical Languages and Literature.

The *Prince of Wales Gold Medal*, for Logic and Mental and Moral Philosophy.

The *Anne Molson Gold Medal*, for Mathematics and Natural Philosophy.

The *Shakspere Gold Medal*, for the English Language, Literature and History.

The *Logan Gold Medal*, for Geology and other Natural Sciences.

In the event of there being no candidate for any Medal, or of none of the candidates fulfilling the required conditions, the Medal will be withheld, and the proceeds of its endowment for the year may be devoted to prizes in the subjects for which the Medal was intended. For details, see announcements of the several subjects below.

2. Honours, of First or Second Rank, will be awarded to those Matriculated Students who have successfully passed the Examinations in any Honour Course established by the Faculty, and have also passed creditably the ordinary Examinations in all the subjects proper to their year.

3. CERTIFICATES of High General Standing will be granted to those Matriculated Students, who are placed in the First Class in the aggregate of the Studies proper to their year.

4. PRIZES OR CERTIFICATES, to those matriculated Students who may have distinguished themselves in the studies of a particular class, and have attended all the other classes proper to their year.

5. His Excellency the Earl of Dufferin has been pleased to offer a Gold and a Silver Medal for Competition in the Faculty of Arts.

The subject for the next competition will be "The Fall of the Republic of Florence." Essays for competition must be in the hands of the Dean of the Faculty of Arts, on or before October 1, 1876.

The subject for the competition of October 1877, will be "The Wars of the Roses, their causes and political and social effects."

The Regulations with respect to competitors are as follows:—

1. The subject for competition shall be an Essay on any topic or period of Modern History, chosen with a due regard to the facility of gathering materials. The judges in forming their opinion shall consider no less the merit of the style than the clearness of the reasoning and the accuracy of the facts, in proof of which last, authorities must always be cited by the writers.

2. The competition shall be open to all regular students and graduates of the Faculty of Arts or of any Department of it, who have not exceeded seven years from their matriculation.

3. When sending in the Essay, the author shall conceal his name, distinguishing his composition by a motto, and sending at the same time his name sealed up in an envelope, on which the motto shall be inscribed. The envelopes of the unsuccessful candidates shall be destroyed unopened.

4. The Gold Medal shall be awarded to the best Essay and the Silver to the next best. Absolute merit shall be required in making the award of either medal. When a medal is not awarded, it may be reserved for future competition.

5. The winner of the Silver Medal in any year may in a subsequent year compete for the Gold Medal, but in no other case shall any person be awarded two of these Medals.

6. THE STEWART PRIZE of $20, is open to all Undergraduates of this, and also to Graduates of this or any other, University studying Theology in any College affiliated to this University, under the following rules:—

1. The prize will not be given for less than a thorough examination in Hebrew Grammar, passed in the First Class, in reading and translating the Pentateuch, and such poetic portions of the Scripture as may be determined.

2. In case competitors should fail to attain the above standard, the prize will be withheld and a prize of Forty Dollars will be offered in the following year for the same.

[Course for the present year :—Hebrew Grammar (Gesenius); Translation and analysis of the first ten chapters of Genesis; the prophet Habakkuk (the whole book): and the first five Psalms.]

3. There will be two Examinations of three hours each, one in Grammar and the other in Translation and Analysis.

This Prize founded by the late Rev. C. C. Stewart, M.A., and which terminated by his death, has been re-established by the liberality of Neil Stewart Esq., of Vankleek Hill, and will be offered for competition next Session.

7. The names of those who have taken Honours, Certificates, or Prizes, will be published, in the order of merit; and with mention, in the case of Students of the First and Second Years, of the schools in which their preliminary education has been received.

§VI*. LICENSED BOARDING HOUSES

(Regulations for Students in Arts, passed by Corporation, April 1875.)

1. All Students under 21 years of age, not residing with parents or guardians or belonging to a Theological College, shall reside in licensed boarding houses, unless they produce written authority from parents or guardians to reside elsewhere.

2. Persons applying for a license to keep a boarding-house, shall produce evidence satisfactory to the Principal, as to their character and fitness, and the suitability of the house for the health and comfort of the students. They shall also supply him with a statement of charges.

3. The College shall supply to the keeper of each licensed boarding-house a Register in which the following facts shall be recorded by him or her:—(1.) The dates of the Student's entrance into and departure from the house. (2.) The hours of return of the Student to the house on every occasion on which this may be later than 10 P. M. This Register shall be returned to the Faculty at the end of every month.

4. The keeper of the boarding-house shall report immediately to the Principal, the entrance or departure of any Student, and any instance of immoral or disorderly conduct.

§ VII. ATTENDANCE AND CONDUCT.

All Students shall be subject to the following regulations for attendance and conduct :—

1. A Class-book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted ; and the said Class-book shall be submitted to the Faculty at all their ordinary meetings during the Session.

2. Professors shall note the attendance immediately on the commencement of their Lectures, and shall omit the names of Students entering thereafter, unless satisfactory reasons are assigned. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class-room, if persisted in after admonition by the Professor, shall be reported to the Dean of Faculty, who may reprimand the student or refer to the Faculty, as he may think proper. He may also suspend from Classes until the next meeting of the Faculty.

3. The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a Session, shall in each case be determined by the Faculty. [Under this rule attendance on at least two-thirds of the lectures will in all cases be required.]

4. While in the College, or going to and from it, Students are expected to conduct themselves in the same orderly manner as in the Class-rooms. Any Professor observing improper conduct in the College building or grounds, may admonish the Student, and if necessary report him to the Dean.

5. Every student is required to attend regularly the religious services of the denomination to which he belongs, and to maintain, without, as well as within, the walls of the College a good moral character.

6. When Students are brought before the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes and honours, suspend from Classes, or report to the Corporation for expulsion.

7. Any student injuring the furniture or building will be required to repair the same at his own expense, and will in addition, be subject to such other penalty as the Faculty may see fit to inflict.

8. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be immediately reported to the Principal or, in his absence, to the Vice-Principal.

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§ VIII. LIBRARY AND MUSEUM.

1. The books in the Library consist of two divisions :—1st, those which may be lent ; and, 2nd, those designated by the general term "Books of Reference," which may not, under any circumstances be removed from the Library.

2. Students may borrow books from the Library on depositing the sum of four dollars with the Librarian, and signing a receipt for the books ; such deposit to be returned to the Student on his returning the books uninjured.

3. Students may borrow not more than three volumes at one time, except on special recommendation of a Professor, and must return them within two weeks, on penalty of a fine of one shilling for the first week of detention, and two shillings and sixpence for each subsequent week.

4. A Student incurring a fine will be debarred the use of the Library until the fine has been paid.

5. Any volume or volumes lost or damaged by a student shall be paid for by him, at such rates as the Faculty may direct, having reference to the value of the book and of the set to which it may belong.

6. Students may read in the Library at such hours as may be determined by the Faculty.

7. Professors and Lecturers may borrow any books required by them for their duties in the College, not exceeding ten volumes at any one time. Books, so borrowed must be returned at or before the end of each Session.

8. Graduates in any of the Faculties, on making a deposit of four dollars are entitled to the use of the Library, subject to the same rules and conditions as students, but they are not required to pay the Annual Library Fee.

9. Members of the McGill College Book Club are, by a regulation of Corporation, entitled to the use of the Library on the same conditions as Graduates.

10. Persons not connected with the College may consult books in the Library, on obtaining an order from any of the Governors, or from the Principal, the Dean of Faculty, or any of the Professors ; and donors of books or money to the amount of Fifty Dollars may at any time consult books on application to the Librarian.

11. The Library will be open from 10 a. m. to 4 p. m., daily, except Saturdays, during the Session, and in the months of May and June. On Saturday it will be open from 1 to 4 p. m.

12. No one is allowed to enter the alcoves or to take down books from the shelves, except the Governors, Members of Corporation, Professors, the Librarian and his assistants, or those whom any of the above may accompany personally.

13. A person desiring to read or to borrow a book, which he has ascertained from the Catalogue to be in the Library, will fill up one of the blank forms provided for Readers and Borrowers respectively, and hand it to the Librarian, who will thereupon procure him the book.

14. Readers must return the books they have obtained to the Librarian, before leaving the Library.

15. No conversation that can disturb Readers is permitted in the Library.

16. The time and conditions of study in the Museum will be arranged by the Professor of Natural History.

§ IX. FEES.

Matriculation Fee for the First Year (to be paid in the Year of Entrance only), - - - - - - - - $4 00

For the Second Year (exigible from students who enter in the Second Year, and also from those who have failed in the First Year and re-enter in the Second Year on Examination,) - - - - - - - - - 6 00

Sessional Fee, - - - - - - - - - - - 20 00

Library Fee - - - - - - - - - - - 4 00

Gymnasium Fee, - - - - - - - - - - - 2 00

Undergraduates and Students in Special Courses are required to pay all the above Fees.

Partial Students are required to pay the Matriculation, Library and Gymnasium Fees, and $5 for each Class which they attend, or $20 for all the courses.

Occasional Students, or those taking one or two courses of Lectures only, and not Matriculated, are required to pay $5 per Session for each course.

The Matriculation, Library and Gymnasium Fees are exigible from students holding exemptions from Sessionable Fees.

Graduates in Arts, are allowed to attend, without payment of fees, all lectures, except those noted as requiring a special fee.

The fees must be paid within a fortnight after the commencement of attendance in each session. In case of default, the Student's name will be removed from the College books, and can be replaced thereon only by permission of the Faculty and on payment of a fine of $2.

Fee for the Degree of B. A. - - - - - - $ 5 00

" " " *M. A.* - - - - - - 10 00

If the Degree of M. A. be granted, with permission to the Candidate, on special grounds, to be absent from Convocation, the fee is - - - $25 00

The B. A. fee must be paid before the Examination.

The M. A. fee must be sent to the Secretary of the University, at the same time that the Candidate sends his Thesis to the Dean of the Faculty. This a condition essential to the entertaining of his application.

§ X. COURSES OF LECTURES

1. ORDINARY COURSE.

1. CLASSICAL LITERATURE AND HISTORY.

Professor, Rev. G. Cornish, M.A., LL.D.

GREEK.

First Year.—Homer.—Iliad, Book VI.
Xenophon.—Hellenics, Book I.
Greek Prose Composition.

Second Year.—
Euripides.—Medea.
Polybius.—Book III., Capp. XX.—LX.

Third Year.—Demosthenes.—The Olynthiacs.
Æschylus.—Prometheus Vinctus.

Fourth Year.—Herodotus.—Book IX.

LATIN.

First Year.—Virgil.—Æneid, Book VI.
Cicero.—Epistolae Selectae.
Latin Prose Composition.

Second Year.—HORACE.—EPISTLES, BOOK I.
CICERO.—DE IMP. CN. POMPEII.
Latin Prose Composition.
Third Year.—JUVENAL.—SATIRES III. AND VIII.
TERENCE.—ADELPHI.
Latin Prose Composition.
Fourth Year.—TACITUS.—ANNALS, BOOK II.
Latin Prose Composition.

In the work of the Class the attention of the Student is directed to the collateral subjects of History, Antiquities and Geography; also to the grammatical structure and affinities of the Greek and Latin Languages; and to Prosody and Accentuation.

2. ENGLISH LANGUAGE AND LITERATURE.

(MOLSON PROFESSORSHIP.)

Professor, VEN. ARCHDEACON LEACH, D.C.L., LL.D.

First Year.—English Language and Literature.—Anglo-Saxon Grammar, (Text-Books—Bain's English Grammar; Spalding's History of English Literature; Klipstein's Anglo-Saxon Grammar.

Third Year.—Rhetoric.—Text-Book—Whately's Rhetoric, I., II., III.

Fourth Year.—English Literature.—Text-Book—Marsh's Hand-Book.

3. LOGIC, MENTAL AND MORAL PHILOSOPHY.

(JOHN FROTHINGHAM PROFESSORSHIP OF MENTAL AND MORAL PHILOSOPHY.)

Professor, REV. J. CLARK MURRAY, LL.D.

Second Year.—Elementary Psychology. Text-Book—Stewart's Outlines of Moral Philosophy, Part. I. Logic, Text-Book—Whately's Logic.

Third Year.—Moral Philosophy. Text-Book—Stewart's Outlines, Part. II.

Fourth Year.—Mental Philosophy. Text-Book—Murray's Outline of Hamilton's Philosophy.

4. FRENCH LANGUAGE AND LITERATURE.

Professor, P. J. DAREY, M. A., B. C. L.

First Year.—DE FIVAS, Grammaire des Grammaires,
LA FONTAINE, les Fables.—MOLIERE, l'Avare.
Dictation. Colloquial exercises.

Second Year.—DE FIVAS, Grammaire des Grammaires.
RACINE, Andromaque, Britannicus.
Translation into French.—DR. JOHNSON, Rasselas.
History of the French Literature.—BONNEFON, Ecrivains célèbres de la France, (to the eighteenth century.)
Dictation, Parsing. Colloquial exercises.

Third Year.—POITEVIN, Grammaire élémentaire.
EMILE SOUVESTRE, Un Philosophe sous les toits. CORNEILLE, le Cid
Translation into French—GOLDSMITH, Vicar of Wakefield.
French Composition. Dictation.
History of the French Literature of the 18th and 19th centuries.—BONNEFON, Ecrivains modernes.

Fourth Year.—MOLIERE, le Misanthrope. PONSARD, l'Honneur et l'Argent.
Lectures on French Literature.
Translation into French, Shakspere, "As you like it."
French Composition. Dictation.

The Lectures in the Third and Fourth Years are given in French.

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5. GERMAN LANGUAGE AND LITERATURE.

Professor, C. F. A. MARKGRAF, M. A.

First and Second Years—Ordinary Course:—This Course comprises Grammar, Reading and Analysis, Translations oral and written, and Dictation. Special regard is had to the affinities of the German with the English. Text-Books; Schmidt's German Guide (1st and 2nd Course); Adler's Progressive German Reader.

First Year.—Advanced Course:—Text-Books;—Schmidt's German Guide (1st and 2nd Course); Adler's Progressive German Reader.

Second and Third Years.—Advanced Course;—Text Books—Schmidt's German Guide (3rd Course); Readings in German Prose and Poetry (the Books to be used will be made known at the commencement of the Session.) Translations from English writers and Composition.

During this Course a series of Lectures will be delivered on the History of German Literature, from the earliest periods down to the classical age of Goethe and Schiller; closing with a brief notice of the state of German Literature at the present day.

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6. HEBREW AND ORIENTAL LITERATURE.

Professor, Rev. A. De Sola, LL.D.

Elementary Course.—For Students of the First and Second Years,—Grammar;—Text-Book, Gesenius' Hebrew Grammar, with exercises in Orthography and Etymology. Reading; Translation and Grammatical Analysis of Historical Portions of the Scriptures—Syntax—Mishlé Shualim—Fables, &c.

Advanced Course.—(For Students of the Second, Third and Fourth Years.)—Introduction to the study of Hebrew Poetry—its spirit and characteristics. Lowth and Sarchi as Text-Books. Translation from the Psalms, Lamentations and Isaiah. Ancient compared with Modern Hebrew Poetry; the productions of Halevi, Gabirol, &c. Grammar, Exercises, &c., continued.

The Chaldee Language:—Grammar, *Mebo Halashon Aramith* of J. Jeitteles. The Chaldee portions of Scripture. Targum of Onkelos and T. Yerushalmi.

The Syriac Language:—Grammar, (Uhlemann's) and Translation.

The course comprises lectures on the above Languages and their Literature in particular, with a general notice of the other Oriental Languages, their genius and peculiarities. Comparative Philology, affinity of roots, &c., also receive due attention, while the portions selected for translation will be illustrated and explained by reference to Oriental manners, customs, history, &c.

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7. SPANISH LANGUAGE AND LITERATURE.

Rev. Professor De Sola.

(Extra Fee for this Class, $5.00.)

The study of the Spanish Language on this continent, being generally pursued with special reference to commercial purposes, it will be sought to impart in this course, a practical knowledge of the Castilian, the richest and most harmonious of the Peninsular languages—as well as an acquaintance with its Literature.

Ollendorf's Spanish Grammar by Velazquez and Simmone, and the Reader of Velazquez, are the Text-Books employed in the Junior Class, who will also be exercised in composition by both written and oral exercises. In the Senior Class, Fernandes' Exercises, continuation of Grammar and Composition, Cervantes' Don Quixote, Quintana, Vida del Cid, and Mariana's Historia will be the subjects of study. Besides a special comparison with the Portuguese Language, a general notice, literary and historical, of the Bascuence and other dialects, will be given.

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8. MATHEMATICS AND NATURAL PHILOSOPHY.

(Peter Redpath Professorship of Natural Philosophy.)

Professor, Alexander Johnson, M. A., LL.D.

Mathematics.—*(First Year)*—Arithmetic.—Euclid, Books, 1, 2, 3, 4, 6, with Definitions of Book 5 (omitting propositions 27, 28, 29, of Book 6). Todhunter's Edition.—Colenso's Algebra, part 1 to end of Quadratic Equations.—Galbraith and Haughton's Plane Trigonometry to end of solution of Plane Triangles.—Nature and use of Logarithms.

Mathematics.—*(Second Year)*—Arithmetic, Euclid, Algebra, and Trigonometry as before.—Remainder of Galbraith and Haughton's Plane Trigonometry—Conic Sections treated Geometrically. (The Parabola as in Drew's Conic Sections,) the definitions of the Ellipse and Hyperbola, with the fundamental properties of their tangents.—Euclid, Book XI., Props. 1 to 21: Book XII., Props. 1, 2.

The course for the Intermediate University Examination consists of the Mathematics for the first two years, except Conic Sections and Solid Geometry.

MATHEMATICAL PHYSICS AND ASTRONOMY.—*(Third Year)*—Galbraith and Haughton's Mechanics (omitting chap. 5 of Statics), Hydrostatics, Optics and Astronomy.

At the Ordinary Examination in Mechanics answers to questions on the Chapters on Friction, Collision of Bodies and Projectiles, will be taken into account only in determining the relative positions of those whose other answers shall entitle them to be placed in the First Class.

EXPERIMENTAL PHYSICS.—*(Third and Fourth Years.)*—1.—*Light.*—Theories.—Reflection.—Refraction.—Dispersion.—Interference and Diffraction.—Double Refraction.—Polarisation. 2.—*Heat.*—Dilatation of Solids, Liquids and Gases.—Specific and Latent Heat.—Radiation and Conduction.—Mechanical Theory of Heat. 3.—*Electricity.* Statical and Dynamical; including Electro-Magnetism.—Magneto-Electricity.—Thermo-Electricity.—Diamagnetism.—Electric Measurements.—Practical Applications to Telegraph, &c. 4.—*Magnetism.* 5.—*Sound.*—Theory of Undulations.—Production and Propagation of Sound—Vibrations of Strings, Rods, and Plates.—Vibrations of Fluids.—Musical sounds. Text-Books.—Ganot's Treatise translated by Atkinson, and Tyndal on Heat. This Course extends over two years.

The Subjects for the Session 1876-77 are Electricity, Magnetism and Sound.

The Lectures in Mathematical and Experimental Physics will be illustrated by apparatus.

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9. GEOLOGY AND NATURAL HISTORY.

(LOGAN PROFESSORSHIP OF GEOLOGY.)

Professor, J. W. DAWSON, LL.D., F.R.S., F.G.S.

I. BIOLOGICAL COURSE.

BOTANY.—*(Second Year.)*—Vegetable Histology and Organography. Nutrition and Reproduction of Plants. Classification. Descriptive Botany. Flora of Canada. Palæobotany and Geographical Botany.

Text-Book.—Gray's Structural and Systematic Botany.

[A prize of $20 will be given for the best collection of plants, and the greatest proficiency in their determination. (*) The prize collections or duplicates of them to remain in the College Museum. Candidates must be students in Botany of the previous session.]

ZOOLOGY AND PALÆONTOLOGY. (*Third Year.*)—Elements of Animal Physiology. Classification of Animals. Characters of the Classes and Orders of Animals, with Recent and Fossil Examples.

Text-Book.—Dawson's Hand-book of Zoology, with books of reference.

(*) Form the surplus increase of the Logan Medal Fund.

II. GEOLOGICAL COURSE.

MINERALOGY AND GEOLOGY. *(Fourth Year.)*

(1) *Mineralogy.*—Chemical and Physical characters of Minerals, including Crystallography, the methods of determining species, and Descriptive Mineralogy; with special reference to those species most important in Geology, or useful in the Arts.

(2) *Lithology and Stratigraphy.*—Composition of Rocks and their structure on the small scale; Classification of Rocks. Arrangement of Rocks on the large scale; Stratification, Elevation and Disturbances, Denudation.

(3) *Chronological Geology and Palæontology.*—Data for determining the relative ages of Formations. Classification according to age. Fauna and Flora of the successive periods. Geology of British America.

Text-Books.—Dana's Manuals of Mineralogy and Geology, with Lyell's Student's Elements.

The Lectures in Natural History will be accompanied with demonstrations in the Museum. Students in Natural History are also entitled to tickets of admission to the Museum of the Natural History Society of Montreal.

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10. CHEMISTRY.

Lecturer, B. J. HARRINGTON, B. A., Ph. D.

First Year.—A course of Elementary Chemistry preparatory to the course in Natural Science and Practical Science.

Text Book.—Wilson's Inorganic Chemistry.

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11. METEOROLOGY.

Superintendent of Observatory, C. H. MCLEOD, Bac. App. Sc.

Instruction in Meteorological Observations will be given in the Observatory, at hours to suit the convenience of the senior students.

Certificates will be granted to those Students who attain sufficient proficiency in the methods of observation.

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12. ELOCUTION.

Mr. JOHN ANDREW, Instructor.

Students are recommended by the Faculty to avail themselves of the instructions of Mr. Andrew, who will make arrangements for evening classes to meet during the Session.

II. HONOUR COURSES.

1. CLASSICS.

B. A. HONOURS, BEING THE HONOUR COURSE FOR STUDENTS OF THE THIRD AND FOURTH YEARS.

Candidates for B. A. Honours in Classics, will be examined in the following subjects:—

I. GREEK.

I.—*Greek Philosophy.*

Plato.—Republic, Books I. and II.
Aristotle.—Nicomachean Ethics, Books I. and II.

II.—*Greek History.*

Herodotus.—Books VIII. and IX.
Thucydides.—Book I.
Xenophon.—Hellenics, Books I. and II.

III.—*Greek Poetry.*

a. Epic.—Homer.—Odyssey, Books I. II. and III.
Hesiod.—Works and Days.

b. Dramatic.—Æschylus.—Prometheus Vinctus.
Seven against Thebes.
Sophocles.—Antigone.
Euripides.—Hippolytus.
Aristophanes.—The Frogs.

c. Lyric and Bucolic.—Pindar.—Olympic Odes.
Theocritus.—Idyls. I. to VI.

IV.—*Greek Oratory.*

Demosthenes.—De Corona.
Æschines.—Contra Ctesiphontem.

II. LATIN.

I.—*Roman History.*

Livy.—Books XXI., XXII. and XXIII.
Tacitus.—Annals, Books I. and II.
Histories, Book I.

II.—*Roman Poetry.*

a. Epic.—Virgil.—Æneid, Book I. to IV.

b. Dramatic.—Plautus.—Aulularia.
Terence.—Adelphi.

c. Satiric.—Horace.—Satires, Book I.
Juvenal.—Satt. VIII. and X.
Persius.—Satt. V. and VI.

III.—*Roman Oratory and Philosophy.*

Cicero.—De Imperio Cn. Pompeii.
De Officiis.

III. HISTORY OF GREECE AND ROME.

Text-Books:—

1. Grote's History of Greece.
2. Arnold's History of Rome.
3. Mommsen's History of Rome.

IV. COMPOSITION.

1. Composition in Greek and Latin Prose.
2. General paper on Grammar, History and Antiquities.

The Examination for B. A. Honours will extend over four days, in the morning from 9 to 12, and the afternoon from 2 to 5.

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2. LOGIC. MORAL PHILOSOPHY, AND MENTAL PHILOSOPHY.

Third Year.—A Course of Lectures will be given on Greek Philosophy. Besides the Lectures, the following works will form subjects of the Examination:—

Schwegler's History of Philosophy, Chapters 1 to 21.
Thomson's Outline of the Laws of Thought, Parts, I. II. and III.

Fourth Year.—The Lectures will discuss the chief modern systems of Philosophy. in connection with the existing tendencies of speculation.

Candidates for B. A. Honours will be examined on the following works, in addition to the Lectures:—

Maurice's Mediæval Philosophy.
Schwegler's History of Philosophy, Chapters 22-45.
Kant's Critique of the Pure Reason.
Kant's Practical Philosophy, translated by F. K. Abbott.
Mill's Logic.
Plato's Theætetus, (in English.)

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3. ENGLISH LANGUAGE, LITERATURE AND HISTORY.

1. *Language*

Klipstein's Anglo-Saxon Grammar.
Thorpe's Analecta Anglo-Saxonica.
Marsh's Lectures on the English Language, by Smith.
Craik's Outlines of the History of the English language.
Tyrwhitt's Essay on the Language and Versification of Chaucer.
Trench's Study of Words.
Trench's English, Past and Present.
Trench's Glossary.

II. *Literature.*

Required from the Student a general acquaintance with the works of the English Classical Authors, and a more minute study of the following portions of English Literature.

Shakespeare's Plays,

Chaucer.—Canterbury Tales ; The Prologue and the Knight's Tale ; the Flower and the Leaf ; the House of Fame.

Spencer.—Fairie Queen ; Books I., II.

Marlowe.—Faustus and Jew of Malta.

Milton.—Paradise Lost ; Comus ; Lycidas ; L'Allegro

Dryden.—Absalom and Achitophel ; Annus Mirabilis ; Dedications to his Translations of Virgil's Æneid and the Satires of Juvenal.

Pope.—Dunciad ; Essay on Criticism ; Rape of the Lock ; Eloisa and Abelard ; Prefaces to his Translations of Homer's Iliad and Odyssey.

Bacon.—Essays.

Required to be read in connection with this part of the Course :—

Craik's History of English Literature.

Hallam's Literary History of Europe—the parts relating to English Literature.

Johnson's Lives of the Poets.

Dunlop's History of Fiction.

III. *History.*

Required a general acquaintance with the History of England to the year 1714, and a more minute knowledge of the Anglo-Saxon period, of the 13th and 14th centuries, and of the period from the accession of Elizabeth to that of George I.

The following books are recommended.

Kemble's Saxons in England.

Lappenberb's England under the Anglo-Norman Kings.

Pauli's Life of Alfred the Great.

Froude's History of England.

Macaulay's History of England.

Clarendon's History of the Rebellion.

Hallam's Constitutional History of England.

Longman's Life and times of Edward III.

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4. MATHEMATICS AND PHYSICS.

MATHEMATICS.—(*First Year.*)—McDowell's Exercises on Modern Geometry, &c. Wood's Algebra.

MATHEMATICS.—(*Second Year.*)—Todhunter's Theory of Equations.—Hind's Plane and Spherical Trigonometry.—Salmon's Conic Sections, first thirteen chapters.—Hall's Calculus.—Chapters 1, 2, 3, 4, 6, 7, of Diff. Cal. ; chapters 1, 2, 3, 4, 5, of Integ. Cal.

MATHEMATICAL PHYSICS.—(*Third Year.*)—Todhunter's Statics, (omitting Chapter 13,)—Tait & Steele, Dynamics of a particle.—Besant's Hydromechanics, Chap 1, 2, 3, 5.—Walton's Mechanical and Hydrostatical Problems —Parkinson's Optics.—Main's Practical and Spherical Astronomy, (selected course.)

B. A. HONOUR COURSE.

PURE MATHEMATICS.—Hind's Plane and Spherical Trigonometry.—Todhunter's Theory of Equations.—Hall's Differential and Integral Calculus.—Boole's Differential Equations (selected course.)—Gregory's Examples of the Calculus (omitting the last two Chapters.)—Salmon's Conic Sections.—Salmon's Geometry of Three Dimensions (selected course.)

MECHANICS.—Todhunter's Statics.—Tait & Steele, Dynamics of a particle.—Routh's Dynamics of a Rigid Body.—Besant's Hydromechanics.—Walton's Mechanical Examples.—Walton's Examples in Hydrostatics.

ASTRONOMY.—Main's Astronomy.—Sir John Herschel's Outlines of Astronomy (Part II. on the Lunar and Planetary Perturbations.)—Godfray's Lunar Theory.

Newton's Principia Lib. I., Sects. 1, 2, 3, 9, and 11,

LIGHT.—Lloyd's Wave Theory of Light,

HEAT,
ELECTRICITY,
MAGNETISM,
ACOUSTICS,
} As in ordinary course.

The examinations for B. A. Honours will continue *four* days.

The examination for honours in the other years will continue *two* days.

Engineering students may be candidates for honours.

COURSE FOR THE ANNE MOLSON MATHEMATICAL PRIZE

The Mathematical Physics of the Honour Course in the Third Year.—

The value of the prize is about $64. It is open for competition to Third Year Students in April 1876.

5. NATURAL HISTORY AND GEOLOGY.

Third Year. Mineralogy and use of the Blowpipe. Lithology. Elementary course in Chronological Geology. Text Books. Dana's Mineralogy and Synopsis by the Professor.

For the best examinations in this Course together with the Zoology of the third year, a prize of $25 will be given from the surplus income of the Logan Medal Fund.

Fourth Year. The Lectures will include :—

1. An advanced course in General Geology and Palæontology, in connection with which the Students will be required to read Dana's Geology and Lyell's Student's Elements.

2. Canadian Geology, in connection with which the Students will read Reports of the Geological Survey of Canada, and Dawson's Acadian Geology.

3. Practical Exercises and Instruction in the methods of Observation and of conducting Geological Explorations, and in the Study of Palæontology. Text-book Von Cotta on Ore Deposits, and Nicholson's Palæontology. Excursions for Field-work when practicable.

In addition to the above, the student is required to pass an examination in any one of the following subjects.

1. Canadian Botany, as in Gray's "Text-Book', and "Manual," and specimens illustrative of these books from the Museum.

2, Zoology and Palæontology of Canada, as in Dawson's Hand-Book and Billing's Palæozoic Fossils, with specimens from the museum.

5, Mineralogy as in Dana, with specimens from the museum.

Candidates for Honours will be expected to attain to such proficiency as to be able to undertake original investigations in some at least of the subjects of study. Students in the Department of Applied Science may be Candidates for Honours.

Lectures in the Undergraduate Course in the Faculty of Arts.

SESSION 1876-7.

FIRST YEAR.

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
9	Classics.	† Mathematics. (*a*)	* French.	† Mathematics. (*a*)	Mathematics.
10	Mathematics.	Classics.	Classics.	Classics.	Classics.
11	English.	* French.	English.	* French.	English.
12	Elementary Chemistry.	* German, * Hebrew.	Mathematics.	* German, * Hebrew.	Elementary Chemistry.
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SECOND YEAR.

9	* French.	Mathematics. (*b*)	Logic,	Mathematics. (*b*)	* German.
10	Classics.	Botany.	* French.	Botany.	* French.
11	Logic.	Classics.	† Mathematics.	Classics.	Classics.
12	† Mathematics.	* Hebrew.	* German.	* Hebrew.	Logic.
1	* German.				

THIRD YEAR.

9	German. (*c*)	Classics.	† Classics, † Geology.	Classics.	Classics.
10	French. (*c*)	† Math. Phys. † Ment. Phil.	Mathematical Physics.	Mathematical Physics.	Moral Philosophy.
11	Mathematical Physics.	Zoology.	Moral Philosophy.	Zoology, † Math. Phys.	French. (*c*)
12	Classics.	(§) Experimental Physics.	Rhetoric.	§ Experimental Physics.	
1		Hebrew.		Hebrew. (*c*)	German. (*c*)

FOURTH YEAR.

9	† Geology.	French. (*c*)	† Classics, † Math. Phys.	French. (*c*)	† Geology.
10	Geology.	German, (*c*) † Ment. Phil.	English Literature.	German. (*c*) † Ment. Pnil.	Geology.
11	Classics.	Mental Philosophy.	Classics.	Mental Philosophy.	† Math. Physics.
12	German. (*c*)	(§) Experimental Physics.	‡ Geology.	§ Experimental Physics.	
1				Hebrew. (*c*)	

(*a*) During Second Term: (*c*) Optional. † For Candidates for Honours.
(*b*) " First " * The Student may take at his option French or German in the first two years, or if a Theological Student, Hebrew, § From November 1st.

Classes at 1 P.M., may be changed to other hours. ‡ For Practical work:
Library open every day except Saturday, 10 to 4: Saturday 1 to 4: The Museum will be open as arranged by the Professor of Natural History.

Department of Practical and Applied Science.

IN THE FACULTY OF ARTS.

Geology and Palæontology.—J. W. DAWSON, LL.D., F.R.S., F.G.S., Professor.
English Language.—VEN. ARCHDEACON LEACH, LL.D., Professor.
German.—C. F. A. MARKGRAF, M. A., Professor.
Mathematics and Natural Philosophy.—ALEXANDER JOHNSON, LL.D., Professor.
French.—P. J. DAREY, M. A., Professor.
Civil Engineering and Applied Mechanics.—G. F. ARMSTRONG, M. A., C. E., F.G.S., Professor.
Practical Chemistry.—GILBERT P. GIRDWOOD, M.D., Professor.
Assaying and Mining.—BERNARD J. HARRINGTON, B.A., Ph. D., Professor.
Assistant to Professor of Engineering.—C. H. MCLEOD, Bachelor of Applied Science.

The courses of study in this Department are designed to afford a complete preliminary training of a Technical as well as a Theoretical nature, for such students as are preparing to enter any of the various branches of the Professions of Engineering and Surveying, or are destined to be engaged in Assaying, Practical Chemistry, and the Higher forms of Manufacturing Art.

Three distinct courses of study are provided ; each of which extends over three, or under certain conditions (§ I) two years, and is specially adapted to the prospective pursuits of the student.

(1) Civil and Mechanical Engineering.
(2) Assaying and Mining.
(3) Practical Chemistry.

The Degrees conferred by the University upon such Undergraduates of this Department as shall fulfil the conditions and pass the examination hereinafter stated (§IV) will be, in the first instance, "Bachelor of Applied Science," mention being made in the Diploma of the particular course of study pursued; and subsequently the degree of "Master of Engineering" on those who have pursued Course 1st, and of "Master of Applied Science" on those who have pursued either of the remaining Courses [2 and 3.]

§ I. MATRICULATION AND ADMISSION.

1. Candidates for Matriculation must present themselves for examination on the 15th of September 1876. They may, however, be, admitted at a later period of the Session, upon special application, and if prepared to take their places in the classes in progress.

FOR ENTRANCE INTO THE JUNIOR YEAR, the subjects for examination will be:—

Mathematics.—Arithmetic; Algebra, to Simple Equations inclusive; Euclid's Elements, Books I., II., III.

English.—Writing from Dictation.

Candidates if unable to satisfy the Examiners in the above shal not matriculate, but if recommended by the examiners may enter the Preparatory Year (For course see § III.)

2. Candidates may enter in the Second or Middle Year, and so reduce the course necessary for the degree in Applied Science, from three to two years, if competent to pass a satisfactory examination in the following subjects. In addition to this, those who intend to pursue Course I. or II. must satisfy the Professor of Engineering that they possess a reasonable knowledge of the elements of Surveying and Levelling and of Linear Drawing and Projection, as in Castle's Text Book of Surveying, and Davidson's Linear Drawing and Orthographic Projection, and of the *Elementary* Course of Twisden's Practical Mechanics, as in Chap. 1, Chap. 2 (Sect 1), and Chap. 3, of Part 1st. Those entering Course 3rd. must satisfy the Professors that they have a sufficient knowledge of Botany and of Drawing as above.

Mathematics.—

Euclid.—Books .I., II., III., IV., VI., with defs. of Book V. omitting propositions 27,28,29 of Book VI.

Algebra.—To end of Quadratic Equations (Colenso's Alg.)

Trigonometry.—Galbraith and Haughton's Trigonometry, Chaps. 1, 2. 3, 4, 6, to beginning of numerical solution of plane triangles.

Arithmetic.—Ordinary rules.—Proportion, Interest, Discount, &c., Vulgar and Decimal Fractions, Square Root.

English.—Writing from Dictation.

Chemistry.—Inorganic as in Wilson's Elements, (or the Candidate must take this subject in the Middle Year.)

French.—Candidates must satisfy the Professor of French that they have a fair knowledge of De Fiva's Grammaire des Grammaires, as far as Syntax; otherwise they must take German.

Candidates must be prepared to pass in one or other of the above Examinations at the beginning of the session. Students who have passed in Class 1st or 2nd in the above subjects, in the Intermediate Examination of the University, may be admitted without further examination in such subjects.

3. Occasional Students may be admitted to the Technical Classes upon payment of special fees, (§VIII.)

§ II. EXHIBITIONS AND PRIZES.

THE SCOTT EXHIBITION.

FOUNDED BY THE CALEDONIAN SOCIETY OF MONTREAL IN COMMEMORATION OF THE CENTENARY OF SIR WALTER SCOTT.

One exhibition of $66 on this Endowment will be offered for competition at the opening of the session of 1876-1877 to Students entering the Senior Year.

Subjects :—All the pure Mathematics of the ordinary course of the Junior and Middle Years, with the remainder of Drew's Conic Sections and of Colenso's Algebra,—Engineering and Surveying of the two previous Years, with a Report on some Engineering work.—English Grammar, Bain's.—English Composition.—Hallam's Middle Ages. chaps. VIII. and IX.,—English Literature, Johnson's Lives of the Poets.—Zoology, Dawson's Handbook, Invertebrates and more especially Fossil Animals.

3. Prizes will be awarded after each Sessional Examination to such Matriculated Students as have passed the Examinations in all the subjects of one of the regular courses of study, and have taken the first rank in the Examinations in one of the subjects.

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§ III. COURSES OF STUDY.

The following are the courses of study arranged for the approaching Session, 1876-1877 :—

I. COURSE OF CIVIL ENGINEERING AND SURVEYING.

Junior Year.—Ordinary Mathematics of the First Year in Arts, (with Honour Mathematics as far as practicable); Chemistry; English Language and Literature; French or German; Linear Drawing and Projection; Surveying and Mensuration, with use of Instruments: Elementary Practical Mechanics.

Middle Year.—Ordinary Mathematics, and Mathematical Physics of the Second and Third Years in Arts (with Honour Mathematics of the Second Year as far as practicable); Experimental Physics; Zoology; French or German; Drawing—Isometrical and Perspective Projection; Levelling; Art of Construction; Mensuration.

Senior Year.—Mathematical Physics (Honour Course of Third Year in Arts, optional); Experimental Physics ; Geology and Mineralogy ; French or German ; Applied Mechanics ; Principles of Mechanism ; Drawing—Constructive and Mechanical ; Construction ; Designing and Estimates.

2. COURSE OF MINING ENGINEERING AND ASSAYING.

Junior Year.—Same as Junior Year of Civil Engineering Course.

Middle Year.—Ordinary Mathematics and Mathematical Physics of Second and Third Years in Arts; Experimental Physics ; Zoology, Geology and Mineralogy ; French or German ; Drawing—Perspective, Orthographic and Isometric Projection ; Levelling ; Construction (in part) ; Mensuration ; Surveying ; Use of Blowpipe ; Assaying.

Senior Year.—Geology (Honour Course) ; French or German ; Experimental Physics ; Drawing of Geological Maps and Sections, and Plans of Mines ; Mining and Mineral Surveying ; Metallurgy ; Applied Mechanics ; Principles of Mechanism.

3. COURSE OF PRACTICAL CHEMISTRY AND ASSAYING.

Junior Year.—Same as above, excepting Surveying and with the addition of Botany.

Middle Year.—Ordinary Mathematics of Second Year in Arts ; Experimental Physics ; Zoology ; French or German ; Practical Chemistry ; Drawing and Botany (unless these are taken in the Junior Year.)

Senior Year.—Mathematical Physics ; Experimental Physics ; Geology and Mineralogy ; French or German ; Metallurgy ; Assaying.

PREPARATORY COURSE FOR CANDIDATES UNABLE TO ENTER THE JUNIOR YEAR.

1. Ordinary Mathematics of the Junior Year, with special instruction from the Assistant to the Professor of Engineering; English ; Drawing and Surveying as in Castle's text-book. Chemistry, and French or German are optional, but Students taking the lectures and passing the examinations in these subjects will be excused from further examinations on becoming candidates for entrance into the Middle Year.

Candidates who pass the final examination of the Preparatory Year may matriculate in the Junior Year without further examination, or may become Candidates for admission on examination into the Middle Year, as stated in Section I. 2.

OBSERVATORY.

Undergraduates taking any of the above courses may receive instructions in Meteorological observations from Mr. C. H. McLeod, Bac. App. Sc., in the College Observatory.

§IV. EXAMINATIONS.

COLLEGE EXAMINATIONS.

There will be a Sessional Examination at the end of each year, and also a Christmas Examination, in the same manner as provided for Undergraduates in Arts ; but Supplemental Examinations will not be allowed to students failing in the Professional or Mathematical subjects of the Middle or Senior Years, except by special permission of the Faculty of Arts.

UNIVERSITY EXAMINATIONS.

I. FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

Candidates must pass the Sessional Examinations of the Junior and Middle Years, or if admitted in the Middle Year, of that year only. They must also pass a Final Examination at the end of the Third Year, in all the subjects of that year, in addition to a special examination in Mathematics, in case of those who graduate in the course of Civil and Mechanical Engineering.

Graduates in Civil Engineering of this University may obtain this Degree and a Diploma in exchange for that which they at present hold, upon application to the Corporation through the Registrar, and upon payment of a fee of $3.

II. FOR THE DEGREE OF MASTER OF ENGINEERING.

Candidates must be Bachelors in Applied Science of at least three years' standing, and must produce satisfactory certificates of having been engaged during that time upon *bona fide* work in either the Civil or Mechanical Branch of Engineering.

They must pass with credit an examination which will extend over the general Theory and Practice of Engineering, in which papers will be set having special reference to that particular branch upon which they have, during the three preceding years, been engaged.

The examination will be held once in each year, in the second week of the month of December, and will be partly written and partly *viva voce.*

Notice of the intention of a Candidate to offer himself at any examination for this degree must be sent in, together with the necessary Certificates and Fees, not less than two calendar months before each examination is to be held.

III. FOR THE DEGREE OF MASTER OF APPLIED SCIENCE.

Candidates must be Bachelors of Applied Science of at least three years' standing, must present certificates of having been employed during that time under competent guidance in some branch of Scientific Work, and must pass with credit an examination in the Theory and Practice of those Branches of Scientific Work in which they may have been engaged. The other conditions as under the last heading.

IV. FOR THE DEGREE OF B. A. WITH THAT OF BACHELOR OF APPLIED SCIENCE.

Undergraduates in Arts who have passed the Intermediate examination may (if qualified under §1,) take the Middle and Senior years of either of the courses in Practical Science along with the Third and Fourth in Arts, and may in the Third and Fourth years omit Mental and Moral Philosophy and may substitute French and German for Latin and Greek. Spanish may be taken instead of French or German.

In addition to the subjects of the Science course, they will be required to satisfy the Examiners in the following subjects; viz; Mathematics, Natural Science, Experimental Physics and Modern Languages.

Students in Arts desirous of availing themselves of these privileges are required to take a preliminary course of Linear Drawing and Projection in the second year.

Students proceeding to the double degree, will enjoy all privileges with reference to Scholarships, Exhibitions, Prizes and Honours, in the same manner as Students in Arts.

Such Students may by permission of the Faculty be Candidates for B. A. Honours, and may be allowed to take the Examination for B. A. in their fourth year in Arts, and to take the Examination for the degree in Practical Science in the following year; or they may graduate in the Science course alone in the fourth year, and graduate in Arts in the following year. In the latter case they shall not compete for medals with the regular Students of the year.

Undergraduates in Arts of the third or fourth years, or Graduates of any University, entering the Department of Practical Science, may at the discretion of the Professors be exempted from such lectures in that Department as they may have previously attended as Students in Arts, but must pass all of the examinations.

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§ V. ATTENDANCE AND CONDUCT.

The regulations under this head are in all respects similar to those in force for Undergraduates in Arts.

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§ VI. LIBRARY AND MUSEUM.

Students in this Department will have the same privileges with reference to the Library and Museum, as Undergraduates in Arts.

§ VIII. FEES AND RESIDENCE.

In the Course of Engineering.—Classes in Arts, $20 ; Classes in Engineering, Surveying and Drawing, $25 ; Library, $4. In all $49 for each Session.

In the Course of Mining Engineering.—Classes in Arts, $20 ; Professional Classes—Junior Year, $25 ; Middle and Senior Years, $35 ; Library, $4. In all $49 to $59 for each Session.

In the Course of Practical Chemistry and Assaying.—Classes in Arts, $20 ; Professional Classes—Junior Year, $25 ; Middle and Senior Years, $35 ; Library, $4. In all $49 to $59 for each Session.

Matriculation Fee, for the Junior Year, (to be paid in the year of Entrance only) $4.
" " for the Middle Year, (exigible from Students who enter in the Middle Year, and also from those who have failed in the Junior Year, and re-entered in the Middle Year on Examination,) $6.

Fee for Degree of Bachelor of Applied Science.—$10.

Fee for Degree of Master of Engineering or Master of Applied Science.—$50.

Laboratory Students are required to purchase their own chemicals, &c. The larger articles of apparatus will be supplied by the Laboratory, the Students paying $6 per Session for their use, and being responsible for breakage.

Occasional Students may be admitted to the Professional Classes in any year, but will be required to pay $20 in addition to the ordinary fee for that year, and $5 for entrance and use of the Library.

Students in Arts may attend the Class on Blowpipe Analysis on paying a fee of $5.

Occasional Students may attend the course of Instruction in Meteorology, on paying a fee of $5.

The exemption of Graduates from Fees applies to such of the fees in Applied Science as are payable to the College.

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§ IX. COURSES OF LECTURES.

[For the Lectures in Mathematics, Physics, Natural Science, Modern Languages &c., see under the Faculty of Arts, ante.]

I. Civil and Mechanical Engineering.

Professor.—G. F. Armstrong, M.A., C. E., F. G. S.

Lecturer in Drawing and Assistant.—C. H. McLeod, Bac. App. Sc.

I. *Surveying and Levelling.*

The object aimed at in this course is to afford the Student such instruction as will cause him to be of immediate service upon entering the office of the Engineer, or of the Surveyor ; and the Lectures embrace the general principles of this important branch of Engineering, discussed under the heads of Chain and Trigonometrical Surveying, as applied to ordinary as well as special operations in the Field.

The construction, adjustment, and use of the various angular and levelling instruments are fully described and illustrated.

In addition to the Lectures, and commencing early in September, a thorough course of Engineering Field-work, in accordance with the subjoined scheme, is undertaken by the class under the guidance of Mr. McLeod, during which the practical operations of the Engineer in the field are actually carried out by the students.

For the Junior Year.—General triangulation and field surveying.

For the two Senior Years.—(1) The running of trial Levels, and making of preliminary surveys between fixed points for a proposed line of Railway, incidentally illustrating the system of location from contours, and the method of road traversing. (2) The setting out and levelling of the line previously selected.

II. *Geometrical Drawing.*

Junior Year.—The course of instruction comprises, (1) the Elementary parts of the Geometrical construction of plane figures, and the principles of the Ellipse, Cycloids, Involutes and such other curves as occur in the Mechanical Arts;—in Gearing, Arches and the like:—(2) Similar constructions in Solid Geometry, or the projections in plan and elevation of various objects, and their developments. Traces, Curves, Normals, the Interpenetration of Solids, and the delineation of objects in Isometrical Projection.

Middle Year.—Perspective Projection, based upon its geometrical principles.

III. *Construction.*

The subjects of the Lectures may be summed up as follows:—The strength and fitness of materials; the Engineering of Earth-work, Masonry, Carpentry, Structures in Iron, Common-Roads, Railways, Bridges and Viaducts, Tunnels, Canals, Works of Drainage, Irrigation and Water supply, Lighthouses, River, Harbour and Sea Works.

IV. *Practical Mechanics.*

In this course of study the analytical principles of Statics and Dynamics are applied to the determination of the conditions of the equilibrium and stability of structures in general, and to the investigation of the motion of rigid bodies; particular attention being paid to the estimation of stress in roofs and bridges, the resistance of dams and retaining walls, and to the theory of work and the motion of machines.

V. *Principles of Mechanism.*

The Lectures in this subject are designed to afford the Student an insight, (1) into the principles of the various elementary contrivances employed by mechanicians to communicate and convert motion of one kind into another, apart from the consideration of *force*; and (2) into the mode of combining such simple forms in the construction of different machines, as exemplified in the Steam Engine, Lathe, Drill, Planing Machines, &c.

The Lectures are illustrated by means of a collection of working models.

VI. *Designing and Estimates.*

The instruction given under this head is intended to enable the Student to apply practically such knowledge as has been obtained from the different Courses of Lectures; and consists in the design, specification, and estimating for such works as are usually undertaken by the Engineer.

Each Student works independently under the personal supervision of the Professor, and makes such drawings and calculations as would be needed were the structure designed to be actually carried out.

2. Assaying, Mining and Metallurgy.

Professor.—B. J. Harrington, B.A., Ph. D.

I. Use of the Blowpipe and Assaying.—(Middle Year.)

Use of the Blowpipe.—The object of this course is to enable Students, by means of the blowpipe and a few simple reagents, to detect the nature of various minerals or ores. On account of the small amount of apparatus required, and the rapidity with which accurate results may be arrived at, a knowledge of this subject will be found most useful to those engaged in geological or other field-work.

Assaying.—The course in Assaying includes lectures and practical work. Assays are made, by various methods, for gold, silver, copper, lead, iron and other metals. Examinations are also made of coal, peat, clay, &c.

II. Mining and Metallurgy.—(Senior Year.)

Mining.—Among the more important subjects taken up in this Course, the following may be mentioned :—Blasting and the nature and use of different Explosives; Quarrying; Hydraulic Mining and Sluicing; Boring and Boring Machinery; Sinking, Timbering and Tubbing of Shafts; Driving and Timbering of Levels; Underground Conveyance and Hoisting; Drainage and Pumping; Lighting and Ventilation of Mines; Special Methods of Exploitation employed in the working of metalliferous deposits or of Coal-seams; Dressing of Ores by means of hammers, stamps, rollers; riddles, buddles. &c.

Metallurgy.—A short Course of lectures, illustrated by a series of Ores and Metallurgical Products. The general properties of the metals and the nature of fuels, fire-clays, &c., are first discussed; and afterwards, the more important metals and the methods of obtaining them from their ores; by wet or dry processes, taken up in detail.

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3. Practical Chemistry.

Professor.—Gilbert P. Girdwood, M. D.

This Course beginning in the first week of October will be conducted in the large and commodious Laboratory recently constructed for the Medical Faculty. It will include a general Course of Qualitative and Quantitative Analysis, adapted to the previous training of the Student; leading in the latter part of the Course to special studies adapted to his future pursuits.

§ X. LIST OF TEXT-BOOKS AND BOOKS RECOMMENDED FOR REFERENCE.

COURSE OF CIVIL AND MECHANICAL ENGINEERING.

1.—*Text-books, required for the Classes.*

First Year, Surveying and Levelling.—Castle's "Elementary Text-Book," and Baker's "Rudimentary Treatise on Land and Engineering Surveying."
Drawing.—Davidson's "Linear Drawing and Projection," (Cassel's Technical Manuals.)

Second Year, Construction.—Rankine's "Civil Engineering."—Davidson's "Elements of Building Construction."
Drawing.—Davidson's "Isometrical and Perspective Projection."

Third Year, Applied Mechanics.—Twisden's "Practical Mechanics."—Goodeve's "Elements of Mechanism."
Drawing.—Davidson's "Practical Perspective" and "Drawing for Machinists."

2. *Books of Reference, recommended for reference, but not necessary for the Classes.*

Railway Construction.—† Haskoll's "Assistant Engineer's Railway Guide,"—Dempsey's "Practical Railway Engineer."

Hydraulics.—Stevenson's "Harbours," Rennie's Harbours, Stevenson's "Skerryvore Lighthouse," Humber "On the water supply of Cities and Towns,"—Hughes' "Water supply of Cities and Towns," Burnell's "Hydraulic engineering," Moncrief "On Irrigation," Neville's "Hydraulic Tables," † Haskoll's "Engineering Field-work."

Girders, Bridges and Roofs.—*, Latham's "Girder Bridges,"—Unwin's "Iron Bridges and Roofs,"—Shield's "Strains on Iron-work Structures," Maynard's "Bridges and Roofs,"—Campin's "Roofs,"—† Humber's "Practical Treatise on cast and wrought Iron Bridges."

Strength of Materials.—Barlow's "Treatise on the strength of Materials," (Humber) † Tredgold and Hodkinson "On the strength of cast Iron."

Specifications and Estimates.—† Donaldson's "Hand-book of Specifications,"—Haskoll's "Civil Engineer's Estimate and Price Book,"—Graham's "Manual on Earthwork,"—Bidder's "Tables on Earthwork."

Surveying and Levelling.—† Butler Williams' "Practical Geodesy,"—* Castle's "Engineering Field-work,"—† Gillespie's "Land Surveying,"—† Simm's "Principles and Practice of Levelling,"—† Bruff's "Engineering Field-work."

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* Expensive or out of Print. † In the College Library.

Mechanical Engineering.—Campin's "Treatise on Mechanical Engineering,"—Rankine's "Prime Movers,"—Fairbairn "On Boilers,"—† Willis' "Principles of Mechanism,—Grantham's "Iron-Ship Building,"—† Fairbairn's "Iron-Ship Building."

General.—"† Transactions of the Institute of Civil Engineers of Great Britain."—Weale's "Series of Rudimentary Treatises" (Classes of Engineering and Architecture.)—* Humber's "Series of Modern Engineering,"—† Moseley's "Mechanical Principles of Engineering,"—† Spon's "Dictionary of Engineering,"—† Smeaton's "Reports,"—† Simm's "Tunnelling,"—Buck's "Oblique Bridges,"—† Tredgold's "Carpentry,"—Nicholson's "Carpenters' Guide," Reid's "Portland Cement,"—Molesworth's "Pocket Book of Engineering Formulæ,"—† Sopwith's "Isometrical Projection."

Course of Mining, Metallurgy, and Assaying,

Books of reference on mining and ore-dressing.

(1) Traité du Gisement et de la Recherche des Mineraux Utiles.—Burat.
(2) Ponson's Traité de l'Exploitation des Mines de Houille.
(3) Coal and Coal Mining.—Warrington Smyth.
(4) Transactions of the North of England Institute of Mining Engineers.
(5) Greenwell's Mine Engineering.
(6) Concentration and Chlorination.—Kustel.
(7) Rittinger's Aufbereitung.

Text-book on Metallurgy.—
Metals: their Properties and Treatment. Bloxam.

Books of Reference on Metallurgy.—
Percy's Metallurgy. Crooke's and Rohrig's Metallurgy. Phillip's Metallurgy. Bauerman's Metallurgy of Iron.

Books of Reference on Assaying.—
Mitchell's Manual. Kerl's Metallurgische Probirkunst.

Text-Books on Blowpipe Analysis.—
Brush's Determinative Mineralogy and Blowpipe.
Elderhorst's Blowpipe Analysis.

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* Expensive or out of Print. † In the College Library.

Lectures in the Department of Practical Science in the Faculty of Arts.

SESSION 1876-7.

JUNIOR YEAR.

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
9	Elem. Pract. Mechs., *(a)*	† Mathematics, *(a)* ‖	* French,	† Mathematics, *(a)* ‖	Mathematics,
10	Mathematics,	Surveying,	† Mathematics,		Elem. Pract. Mechs. *(a)*
11	English.	* French,	English,	* French,	English,
12	Elementary Chemistry.	* German.	Mathematics.	* German,	Elementary Chemistry,
1					
2	Drawing, to 4.30.	Plotting, to 4.30.	Field Work, to 5.	Drawing, to 4.30.	Plotting, to 4.30.

MIDDLE YEAR.

9	* French,	Mathematics, *(b)*	Construction,	Mathematics *(b)*	* German,
10	* German ‡ Geology	Surveying,	Math. Phys. * French,	Pract. Mech. until Christ- }	* French, † Geology,
11	Mathematical Physics,	Zoology,	Mathematics,	Zoology mas, *(q)* }	Mathematical Physics,
12	† Mathematics,	Experimental Physics,	‡ Geology, * German,	Experimental Physics,	Mensuration,
1					
2	‡ Assaying, Field Work,	Plotting, to 4.30.	‡ Assaying, Drawing,	Drawing, to 4.30.	Plotting, or ‡ Assaying,
3.30	to 5. *(c)*		Levelling.		Construction.

SENIOR YEAR.

9	‡ Geology,	* German,	Construction,	* German,	‡ Geology,
10	Geology,	Mathematical Physics,	Pract. Mechanics,	Drawing, or Field Work.	* Geology,
11	* French,				* French, † Math. Phys.
12	Principles of Mech. *(q)*	Experimental Physics,	Geology,	Experimental Physics.	
1					
2		Drawing, to 4.30.	Drawing, to 4.30.		Designing, to 3.30,
3	Field Work, to 5.		‡ Metallurgy.	Designing, Plotting,	‡ Mining,
3.30	‡ Mining.			to 4.30.	Construction.

‖ A class at this hour for Preparatory Year throughout the Session. The Professor of Mathematics may require Students of Junior Year to attend if deemed necessary.
* Students may take either French or German. *(a)* Second Term only.
† Optional. *(b)* First Term only. ‡ To Students in Mining Engineering and Assaying.

Students in Practical Chemistry will take that subject at 2 P.M. in the Middle year, and Assaying at 2 P.M. in the Senior year, and will take the Lectures in Botany in the Junior or Middle year. The Classes in Practical Science and Experimental Physics commence on Nov 1st. except the Field Work under the Assistant in Engineering, which begins, with the other Classes, on Sept. 15th, and the Practical Chemistry which begins in the first week in October.

Faculty of Medicine.

The Principal, (ex-officio.)

Professors :—Campbell.	Professors :—Drake.
Scott.	Girdwood.
Wright.	Ross.
Howard.	Osler.
McCallum.	Roddick.
Craik.	Godfrey.
Fenwick.	Gardner.

Dean of the Faculty.—G. W. Campbell, A. M., M. D., LL.D.

Registrar and Treasurer.—R. Craik, M.D.

Demonstrator.—Francis J. Shepherd, M.D.

Assistant Demonstrators. { Rich. L. MacDonnell, B. A., M.D. / Wm. A. Molson, B. A., M. D.

Curator of Museum.—Jas. C. Cameron, M. D.

Matriculation Examiner of the Faculty.—Professor H. Aspinwall Howe, LL.D.

The forty-fourth Session of the Medical Faculty of McGill University will be opened on Monday October, 2nd 1876, with a general Introductory Lecture at 11 a.m. The regular lectures will commence on Tuesday the 3rd Oct., at the hours specified in the time-table, and will be continued during the six months following.

It affords the Faculty much pleasure to be able to announce that the beautiful and commodious new building erected by the Governors of the University for the use of the Medical Faculty, has been completed and is now occupied by the Faculty.

The class tickets for the various courses are accepted as qualifying candidates for examination before the Universities and Colleges of Great Britain and Ireland, the Medical Boards of the Army and Navy, and the College of Physicians and Surgeons of Ontario.

To meet the circumstances of the General Practitioners in British North America, where there is no division of the profession into Physicians and Surgeons exclusively, the degree awarded upon graduation is that of "Doctor of Medicine and Master of Surgery." This designation is also appropriate, as it agrees with the general nature and character of the previous curriculum demanded of the candidates for this double rank, as is fully specified hereafter. The degree is received by the College of Physicians and Surgeons of Lower Canada.

To intending students desirous of information upon the best manner of pusuing their studies, the following suggestions are made by the Faculty :—

Exclusive of general education, professional reading for some time previous to matriculation, is advised as a preparation, whereby familiarity with technical terms will be gained and an insight obtained into the subjects to be brought under notice during lectures.

The student is advised to pass the Matriculation Examination in March so that his four years of pupilage may expire at the close of a winter session. A certificate of having passed such examination before the examiners appointed by the College of Physicians and Surgeons of Ontario will be accepted by this University.

N. B. The Medical Council of Ontario now requires all students from that Province to pass their Matriculation Examination in Ontario before pursuing their studies elsewhere.

While the University regulations permit a student to graduate after three years' attendance upon lectures, provided he furnish proof that he has studied one year in addition with a private practitioner, yet he is recommended to devote four sessions to systematic instruction, as less time is scarcely sufficient for acquiring a fair knowledge of the many subjects which compose the curriculum.

As daily bed-side instruction is essential to the student of medicine, the undergraduate is earnestly advised to spend at least the last two summers in availing himself of the opportunities afforded by the large hospitals—general and lying in—of our city; in which, moreover, dresserships should be obtained.

Enregistration is necessary every Session. It is required upon entrance, or as soon afterwards as possible, and always before any class tickets are procured. The time fixed for closing the Register is annually on the 30th of November,

Class tickets are payable in advance, and if not taken out during the current session will not be granted after its expiration.

A Medical Session or *annus medicus*, consists of enregistration and attendance upon at least two six months' courses or one six months' and two three months' courses.

COURSES OF LECTURES.

1. ANATOMY.—[Prof. Scott]—The importance of Anatomy, both descriptive and in its relations to Medicine and Surgery, is duly considered by the Professor, who employs chiefly the fresh subject in the illustration of the lectures, aided, however, by dried preparations, wax models, plaster casts of dissections, plates &c, the full size of life.

The Dissecting Room, which is open from 8 a.m. to 10 p.m.—is large, well ventilated and supplied with every convenience, such as gas, water, &c., &c. It is under the direct supervision of the Professor of Anatomy aided by the Demonstrators. The Demonstrators are constantly in attendance during certain hours every day, to direct and instruct students in Practical Anatomy, and the Professor also daily visits the Room to superintend and examine Students engaged in dissection. Abundance of fresh material for dissection will be provided.

2. CHEMISTRY.*—[Prof. Craik.]—Inorganic Chemistry is fully treated : and a large portion of the course is devoted to Organic Chemistry and its relations to Physiology. The branches of Physics bearing upon or connected with Chemistry also engage the attention of the class. For experimental illustration, abundant apparatus is possessed by the Professor, among which may be enumerated, a powerful Air Pump—Oxy-Hydrogen Microscope—Polariscope—extensive series of Models of Crystals—Electrical and Galvanic apparatus, Steam engine, &c., &c.

3. MATERIA MEDICA.—[Prof. Wright]—This course is illustrated from a cabinet of Pharmacological objects ; by plates of Medicinal Plants [Wagner, Roque, Stevenson and Churchill] ; by dried specimens ; by carefully prepared Microscopical objects, &c., &c. Analytical experiments with the ordinary re-agents are also shown, and diagrams with other illustrations are used.

4. INSTITUTES OF MEDICINE.—[Prof. Osler]—This course comprises Histology, Physiology, and General Pathology. The lectures are illustrated by apparatus, diagrams, plates, and Microscopic preparations of the various tissues, and by Pathological specimens from the Museum. Extra demonstrations are held every Saturday afternoon. Voluntary Courses of three months each on Practical Physiology and Microscopy, are organized throughout the entire year.

* Students are permitted, if desired, to be examined upon this branch separately, at the end of their second medical year, after having attended two six months' courses.

5. Practice of Medicine.—[Prof. Howard.]—The extensive series of plates contained in the Library, (Lebert, Cruveilhier, Carswell, Hope, Alibert, Willan, Bateman, &c.,) will be employed; also Morbid preparations and Models of diseased parts.

6. Surgery. —[Prof. Fenwick.]—Divided into Principles and Pratice, including Surgical Anatomy and Operative Surgery, exhibited on the subject. The various surgical instruments and apparatus exhibited, and their uses and applications explained and pratically illustrated.

7. Midwifery.—[Prof. McCallum.]—Including diseases of females and infants; illustrated by a series of drawings on a large scale, by humid preparations, by models in wax, by the use of the artifical Pelvis, and by cases in the wards of the Lying-in Hospital.

8. Medical Jurisprudence.—[Prof. Gardner.]—Includes Insanity and Toxicology. The modes of testing for poisons are exhibited, and post-mortem appearences illustrated by plates.

9. Clinical Surgery.—[Prof. Roddick.]—The Lectures in this course are in illustration of Surgical cases under observation in the Wards of the General Hospital. Bed-side instruction is followed up daily, and all operations are performed in the presence of the class. The lectures are illustrated by cases under surgical treatment, by plates, surgical apparatus, morbid specimens, models and the use of the microscope.

10. Clinical Medicine.—[Prof. Ross.]—Taught by lectures and at the bed-side—Physical Diagnosis is taught practically, and each pupil required to take part in it. Examination of the Urine, chemical and microscopical, explained and illustrated.

11. Hygiene and Public Health.—[Prof. Godfrey.]—A course of twelve or more lectures will be delivered on this subject; and as it is one of great and increasing importance, all Students are earnestly recommended to attend.

12. Botany and Zoology.—[Prof. Dawson.]—The course in Botany is illustrated by specimens, diagrams, models, and the microscope. Students have access without any additional fee to the lectures in Zoology in the Faculty of Arts, and to the Natural History Museum of the University and the Museum of the Natural History Society of Montreal.

Prizes will be awarded at the end of each Session, to Students in Botany of the class of the previous Session, for the best *Named Collections* illustrative of the Flora of Canada. The collections, or duplicates of them, to remain in the College Museum.

13. Practical Chemistry.—[Prof. Girdwood.]—Thorough instruction is given in the different departments of Practical Chemistry in the splendid new Laboratory of the Faculty, under the personal supervision of the Professor. The course includes blowpipe manipulations, qualitative and quantitative analysis, toxicological investigations, &c., &c.

Summer Course of Practical Chemistry.—For the convenience of those students who pass the summer months in the city, a summer course of Practical Chemistry has been arranged, consisting of the same number of lectures and demonstrations, and being in every way equivalent to the usual winter course.

SUMMER SESSION.

In order that the unusual advantages afforded by the Hospitals and other Institutions of the city, for the practical study of different branches of the Profession may be rendered as fully available to Students as possible, a three months Summer Session has been established.

The Summer Session does not form a necessary part of the curriculum, but has been established to allow the student facilities for acquiring practical knowledge of disease, when his time is not otherwise occupied in attendance upon lectures.

Further particulars of the Summer Session will be found at the end of this announcement.

LIBRARY AND MUSEUM

The Library contains upwards of 4,000 volumes, including the most useful books of reference, as well as the most elementary; the works of the older authors as well as the most recent. It is open to Students without charge, under necessary regulations for the care of the books. The Museum contains a large number of preparations, chiefly Pathological; also wax and papier-mache models.

HOSPITALS.

The Montreal General Hospital affords ample means for the instruction of Students in Clinical Medicine and Surgery. The daily number of beds occupied by patients averages from 130 to 140, and during epidemic visitations has reached a much higher number. In addition to the Hospital proper, which is devoted to Medical and Surgical cases, there is a detached Hospital in which the several forms of Fever may be studied. The Governors have also erected an Hospital for Children, contiguous to the Reid Wing of the present building. The students have thus an opportunity of becoming familiar with nearly all the diseases of suffering humanity, and with the peculiarities imparted to them by infancy, adolescence, maturity and declining age.

The large number of out-door patients that are treated in the Hospital, averaging from sixty to seventy daily—supply illustrations of most of the diseases of infants and children, of very many of the eye and skin, and of those chronic and ill-defined ailments, which, as they do not require admission to the wards of an hospital, would not otherwise come under the observation of the student, although, on account of their variety and frequency, of great importance to the Physician.

The shipping contributes a great many examples of accidents and surgical cases.

Arrangements are now in progress for the appointment of an Ophthalmic and Aural Surgeon to the Hospital, giving to students an opportunity of becoming familiar with all classes of diseases of the Eye and Ear, and with the latest and most approved methods of treatment for their alleviation and cure.

The fee for a six months' ticket is Eight Dollars ; for a perpetual ticket Twenty Dollars if paid in advance. Twenty-four Dollars if not paid in advance.

The Operating Room (used also for a lecture room) is so constructed as to suit the convenience of the students in obtaining a good view of the operations.

The University Lying in Hospital is under the direction of the Professor of Midwifery. Students who have already attended one course of his lectures, are furnished with cases in rotation ; and they are advised to attend this Institution as much as possible during the Summer, when as there are as many patients and not so many pupils

as in winter, a larger proportion of cases falls to the share of each. Moreover, in this way more attention can be given to their duties during the winter. The fee for a six months' ticket is Five Dollars.

By the kindness of the authorities of the Grand Trunk and other Railways, arrangements have been made by which certified students of this University will be granted return tickets from Montreal to any part of their lines at greatly reduced rates; the said tickets to hold good from the close of one session to the beginning of the next. Return tickets will also be granted for the Christmas vacation.

PAST SESSION.

The total number of students enregistered in this Faculty during the past session was 148, of whom there were from;

Ontario	86	New Brunswick	3
Quebec	42	P. E. Island	5
Nova Scotia	4	West Indies	1
United States	7		

The following gentlemen, 21 in number, have passed their Primary Examinations on the following subjects: Anatomy and Physiology, Chemistry, Materia Medica and Pharmacy, Institutes of Medicine and Botany and Zoology, their names, and residences are as follows:

NAME.	RESIDENCE.
Armstrong, George E	Montreal, Q.
Bell, James	North Gower, O.
Boyle, Albert	Charlottetown, P. E. I.
Brodie, John	North Georgetown, Q.
Burland, Samuel C	Cambridge, Mass., U. S. A.
Cannon, Gilbert	Almonte, O.
Cameron, Duncan H	Perth, O.
Collison, Robert	Matilda, O.
Cotton, Cedric L	Cowansville, Q.
Faulkner, Daniel W	Holloway, Ont
Fortier, Alexandre	River David, Q.
Fraser, Alexander C	Wallaceburgh, O.
Gillis, John A. F	Summerside, P. E. I.
Greaves, Henry C	Barbadoes, W. I.
Jamieson Alexander, B. A	Lancaster, O.
Lane, John A	Prescott, O.
Law, William K	Richibuctou, N. B.
Miner, Frank. L	Abercorn, Q.
Oakley, William D	Plattsville, O.
Park George A	St. Marthe, Q.
Smellie, Thomas S. D., M. A	Fergus, O.

The following gentlemen, 34 in number, have passed their Final Examinations for the degree of M. D., C. M., from this University. These examinations are both written and oral, and are on the following subjects: Principles and Practice of Surgery, Theory and Practice of Medicine, Obstetrics and Diseases of Women and Children, Medical Jurisprudence and Hygiene,—and also Clinical Examinations in Medicine and Surgery conducted at the bedside in the Hospital, and a Thesis on some medical subject.

The names of the successful candidates, their residences and the subjects of their thesis, are as follows :

NAME.	RESIDENCE.	THESIS.
Baynes Donald, M. A.	Montreal, Q.	Bronchocele.
Campbell, James	London, O.	Spasmodic Asthma.
Clarke, Fincastle G. B.	Collingwood, O.	Bloodless Operations.
Colquhoun George	Grenville, O.	Clinical Reports.
Cook, Guy R., B. A.	Aultsville, O.	Bronchitis.
Cooke, William Henry	Drummondville, Q.	Food.
Coyle, Henry W.	Berthier, Q.	Erysipelas.
Craig, Thornton	Glengarry, O.	Erysipelas.
Cream, Thomas N.	Quebec, Q.	Chloroform.
Crothers, William	Clarenceville, Q.	Clinical Reports.
Eberlé, Harry A.	Morpeth, O.	Pneumonia.
Gray, John S.	Heckston, O.	Uterine Hæmorrhage.
Greer, Thos. A.	Colborne, O.	Spermatorrhœa.
Hunt, Henry	Notfield, O.	Clinical Notes.
Johnson, James B.	Weston, O.	Hospital Reports.
Lang, Chrisptoher McL.	Owen Sound, O.	Ankylosis.
Levi, Reuben	Montreal, Q.	Lobar Pneumonia.
McIlmoyl, Henry A.	Iroquois, O.	Typhoid Fever..
MacDonnell, Richard L., B. A.	Montreal, Q.	Medical Cases.
McRae, George	Renfrew, O.	Typhoid Fever.
Metcalfe, Henry J.	Riceville, O.	Diabetes Mellitus.
Monro, Alexander	Montreal, Q.	Tubercle.
Murray, Chas. H., B. A.	Montreal, Q.	Hospital Reports.
Powell, Robert H. W.	Ottawa, O.	Surgical Cases.
Reddy, Herbert L., B. A.	Montreal, Q.	Hospital Reports.
Ritchie, Arthur F., B. A.	Montreal, Q.	Tubular Nephritis.
Robinson, Stephen J.	Brantford, O.	Typhoid Fever.
Secord Levi	Brantford, O.	Pulmonary Emphysema.
Smith William	Lachute, Q.	Alcohol.
Snider, Fred. S.	Simcoe, O.	Acute Artic-Rheumatism.
Stevenson, Charles N.	Sarnia, O.	Clinical Reports.
Storrs, Arthur	Cornwallis, N. S.	Post Part. Hæmorrhage.
Stroud, Charles S.	Montreal, Q.	Syphilis.
Young Philip R.	Clarenceville, Q.	Hospital Reports.

Of the above named gentlemen Mr. R. H. W. Powell is under age. He has, however, passed all the examinations and fulfilled all the requirements necessary for graduation, and only awaits his majority to receive his degree.

The following gentleman, 17 in number, passed their examination in Theoretical Chemistry:

F. S. Greenwood,	Milton McCrimmon,	George W. Kirk.
James J. Guerin,	H. H. Gardner,	N. Ayer.
J. D. Cameron,	W. B. Gibson,	D. F. Smith.
F. J. Stafford,	A. P. Chisholm,	J. K. McKinlay.
M. C. Rutherford,	Robert Bell.	M. Beckstead.
J. R. Fraser,	H. N. Vineberg.	

Students who have passed the examination in Botany and Zoology:

BOTANY.

CLASS I.

W. J. Neilson	J. Smith,	P. E. Carman.
W. D. Oakely,	W. F. Shaw,	H. H. Gardner.
B. F. Butler,	J. B. Lawford,	H. C. Feader.
D. F. Gurd,	A. W. Imrie,	J. A. McDonald.
J. L. Brown,	E. McNeill,	A. Henderson.
H. Stevenson,	J. B. Carman,	A. D. Webster.

CLASS II.

J. McCarroll,	W. Sutherland,	C. J. Jamieson.
J. G. Scott,	J. C. McRae,	J. Smiley.
S. McNee,	F. H. Mewburn,	M. Seymour.
T. A. Kidd,	J. M. Wilson,	M. Beckstead.
F. Hanna,	H. J. Burwash.	

CLASS III.

W. R. Law,	R. C. McDonald,	W. D. M. Bell.
J. S. Edwards,	G. H. Oliver,	J. A. Mattice.
J. B. Menzies,	C. A. Weagant	A. Poaps.
E. W. Setree,	J. McCrimmon.	W. P. Mullin.
W. J. Prendergast,	G. McCullough,	
T. A. Page,	J. E. McEvenue,	

ZOOLOGY.

CLASS I.

A. Henderson. A. D. Webster.

MEDAL AND PRIZES.

The Medical Faculty Prizes are three in number:

1st The Holmes Gold Medal, awarded to the student of the graduating class who receives the highest aggregate number of marks for the best examinations, written and oral, in both Primary and Final branches and for his inaugural thesis.

2nd. A prize in books awarded for the best examination, written and oral, in the Final branches. The gold medallist is not permitted to compete for this prize.

3rd. A prize in books awarded for the best examination, written and oral, in the Primary branches.

The Holmes Gold Medal was awarded to Robert H. W. Powell of Ottawa, O.

The prize for the Final Examination was awarded to Charles H. Murray, B.A., Montreal, Q.

Although there are but two regular prizes given to students of the graduating class, a Special prize has been awarded by the faculty to Richard L. MacDonnell, B.A., for general proficiency, and the excellent character of his inaugural thesis.

The prize for the Primary Examination was awarded to Alexander C. Fraser, Wallaceburg, O.

The following gentlemen, arranged in the order of merit, deserve honourable mention :—In the Final Examination, Messrs. MacDonnell, Ritchie, Young, Hunt, Smith, Secord, and Lang.

In the Primary Examination, Messrs. Bell, Cotton, Oakley, Smellie, Jamieson, Miner, and Armstrong.

PROFESSORS' PRIZES.

PRACTICAL CHEMISTRY. - - - D. F. Smith

BOTANY—Neilson & Oakley ZOOLOGY—Henderson.

PRACTICAL ANATOMY.

Demonstrator's prize in the Senior Class, awarded to William D. Oakley.

Junior Class prize awarded to Wm. J. Neilson.

Honourable mention, Messrs. Webster and McCrimmon equal. Lawford, Heard, Shaw and Stevenson equal, McCully.

Deserving honourable mention for care and assiduity, Messrs. Greenwood, Vineberg, D. F. Smith, Cameron, McGuigan, and Fraser.

EXTRACTS FROM THE REGULATIONS.

§ *1. Courses of Lectures, Fees, &c.*

1st. Each Professor shall deliver at least five Lectures during the week, except in the classes of Clinical Medicine and Clinical Surgery, in which only two Lectures shall be required ; and in that of Medical Jurisprudence, if extended through six months, in which case three Lectures a week will suffice.

2nd. Each Lecture shall be of one hour's duration.

3rd. Every Professor shall occasionally examine his class upon the subjects treated of in his preceding Lectures, and every such examination shall be considered a Lecture.

4th. A roll of the names of the Students attending each class shall be called from time to time.

5th. All tickets which have not a certificate of attendance attached, shall be rejected when presented as testimonials previous to examination, unless the omission shall be satisfactorily accounted for.

6th. The Fee for each class shall be $12, with the following exceptions; for that of Medical Jurisprudence, $10; for Botany and Zoology, $5; Practical Anatomy $6. The class-fees are payable in advance.

7th. Any Student, after having paid the Fees, and attended two courses of any class, shall be entitled to a perpetual ticket for that class.

8th. The courses of all the classes, except those of Clinical Medicine, Clinical Surgery and Medical Jurisprudence, shall be of six months' duration, the classes of Clinical Medicine and of Clinical Surgery of three months' duration, Medical Jurisprudence of three months, in which case Five lectures a week shall be given; or of six months, in which case only three Lectures a week shall be required.

9th. The courses shall commence on the first week of October, and with the exception of a vacation at Christmas, shall continue to the end of March.

10. The Matriculation Examination shall be that recommended by the Council for Medical Education and Registration of Great Britain. Examinations in conformity therewith, will be held the first Saturday in October and the last Saturday in March of each year. Applications may be made to the Registrar of the Faculty till the evening of the previous day. The requirements of the standard for matriculation are :—"Compulsory—English Language, including grammar "and composition; Arithmetic, including vulgar and decimal fractions; Algebra "including simple equations; Geometry, first two books of Euclid; Latin "translation and grammar :—and one of the following optional subjects:—Greek, "French, German, Natural Philosophy, including mechanics, hydrostatics, and "pneumatics."

Graduates in Arts of recognized Universities are not required to submit to the Matriculation Examination, and a certificate of having passed this Examination before the College of Physicians and Surgeons of Ontario will be accepted by this University.

§ 2. *Qualifications and Studies of Students and Candidates for the Medical Degree.*

1. All Students desirous of attending the Medical Lectures, shall at the commencement of each Session, enrol their names and residences in the Register of the Medical Faculty, and procure from the Registrar a ticket of Enregistration, for which each Student shall pay a fee of $4; excepting in the Clinical Classes, in which enregistration for students of other Schools shall not be compulsory.

2. The said Register shall be closed on the last day of November in each year, and no tickets obtained from any of the Professors shall be received without previous Enregistration.

3. No one shall be admitted to the Degree of Doctor of Medicine and Master of Surgery, who shall not either:—1st, have attended Lectures for a period of at least four six months' sessions in this University, or some other University, College, or School of Medicine, approved of by this University; or 2ndly, have studied medicine during at least four years, and during that time have attended Lectures for a period of at least three six months' Sessions, either in this University, or some other University, College, or School of Medicine, approved of by this University.

4. Candidates for the final Examination shall furnish Testimonials of attendance on the following branches of Medical Education, viz :—

Anatomy. *Chemistry.* *Materia Medica and Pharmacy.* *Institutes of Medicine.* *Principles and Practice of Surgery.* *Midwifery and Diseases of Women and Children.* *Theory and Practice of Medicine.* *Practical Anatomy.*	*Of which two Courses will be required, each of six months duration.*
Clinical Medicine. *Clinical Surgery.*	*Of which two Courses will be required each of three months' duration.*
Medical Jurisprudence. *Botany or Zoology.* *Practical Chemistry.*	*Of which one Course will be required, of three months' duration.*

Provided however that Testimonials equivalent to, though not precisely the same as those above stated, may be presented and accepted.

5th. The Candidate must give proof by ticket, of having attended during twelve months the practice of the Montreal General Hospital, or that of some other Hospital approved of by this University.

6th. He must also give proof by ticket, of having attended at least six months the practice of the University or other Lying-in Hospital approved of by this University, and of having attended at least six cases of accouchement.

7th. No one shall be permitted to become a Candidate for examination who shall not have attended at least One Session of this University, and one full course of all the branches included in its curriculum.

8th. Courses of less length than the above will only be received for the time over which they have extended.

9th. Every Candidate for the Degree must on or before the Fifteenth of February present to the Dean of the Medical Faculty testimonials of his qualifications, entitling him to an examination, and also a Thesis or Inaugural Dissertation, written by himself, on some subject connected with Medical or Surgical Science, in the Latin, English or French Language. He must at the same time deliver to the Dean of the Faculty the following Certificate :—

MONTREAL, ——— 18—

I, the undersigned being desirous of obtaining the Degree of Doctor of Medicine and Master of Surgery, do hereby declare that I have attained the age of twenty-one years, or (if the case be otherwise,) that I shall have attained the age of twenty-one years before the next graduation day, and that I am not (or, shall not be at that time) under articles as a pupil or apprentice to any Physician, Surgeon or Apothecary. [Signed,] A. B.

10th. The trials to be undergone by the candidate shall be :—

(1) The private examination of his Thesis as evidence both of Medical and general acquirements, followed (if approved) by its public defence.

(2) A general examination on all the branches of Medical and Surgical Science, oral, and by written papers.

(3) The Clinical Professors shall conduct the examinations of members of their classes at the bed-side, submitting to them cases for diagnosis and treatment in the wards of the Hospital ; they shall also in estimating the standing of members of their classes, and the number of Marks to be awarded, take into account the regularity of their attendance and the diligence and care they evince in reporting cases.

These examinations will be divided into Primary and Final, the former comprehending Anatomy, Chemistry, Materia Medica, Institutes of Medicine, and Botany or Zoology ; the latter—Practice of Medicine, Surgery, Midwifery, Clinical Medicine, Clinical Surgery and Medical Jurisprudence. It will be optional with the student to present himself for the Primary Examination at the end of the Third Session or the Third Year, for Botany at the end of the First Year and for Chemistry at the end of the Second Year.

11th. The following Oath or affirmation, will be exacted from the Candidate before receiving his degree.

SPONSIO ACADEMICA.

In Facultate Medicinæ Universitatis.

Ego, A———B——— ; Doctoratus in Arte Medica titulo jam donandus Sancto coram Deo cordium scrutatore, spondeo, me in omnibus grati animi officiis, ergo hanc Universitatem ad extremum vitæ halitum, perseveraturum, tum porro artem medicam, caute, caste et probe exercitaturum ; et quoad in me est, omnia ad aegrotorum corporum salutem conducentia, cum fide procuraturum ; quae denique, inter medendum, visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita praesens mihi spondenti adsit Numen.

12. The Fee for the Degree of Doctor of Medicine and Master of Surgery shall be twenty dollars, to be paid by the successful candidate immediately after examination, together with a Registration Fee of one dollar.

13th. The money arising from the Fees of Graduation, as well as those of Enregistration, shall be applied to the enlargement of the Medical Library and Museum, and to defraying their expenses.

BOOKS RECOMMENDED TO STUDENTS.

ANATOMY.—Gray, Wilson, Ellis, Dublin Dissector, Sharpey and Quain.

CHEMISTRY.—Fownes, Miller, Roscoe.

PRACTICAL CHEMISTRY.—Odling, Galloway: Fresenius.

MATERIA MEDICA.—Pereira's Manual by Farre, Bentley and Warrington.

INSTITUTES OF MEDICINE.— *Physiology.*—Kirke's Hand-book, Dalton, Carpenter, Flint, Huxley. *Pathology.*—Williams' Principles of Med icine, Jones & Sieveking.

SURGERY.—Holmes' Surgery, Miller's do, Erichsen's do, Druitt's do.

PRACTICE OF MEDICINE.—Aitken, Wood, Watson, Barlow, and Flint.

MEDICAL JURISPRUDENCE—Orfila Medicine Legal, Taylor's Jurisprudence, Guy's Forensic Medicine.

MIDWIFERY.—Churchill, Ramsbotham, Cazeau.

N. B.—Boarding may be obtained at from twelve to sixteen Dollars per month.

Lectures in Medicine.--Session 1876-77.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	
ANATOMY,	9	9	9	9	9		A.M.
MEDICAL JURISPRUDENCE,	9		9		9		A.M.
SURGERY,	10	10	10	10	10		A.M.
BOTANY*		10		10			A.M.
MIDWIFERY,	11	11	11	11	11		A.M.
HOSPITAL,	12	12	12	12	12	12	NOON.
CLINICAL LECTURES,			12			12	NOON.
MATERIA MEDICA,	2	2	2	2	2		P.M.
PRACTICAL CHEMISTRY,		2		2		2	P.M.
INSTITUTES OF MEDICINE,	3	3	3	3	3		P.M.
PRACTICE OF PHYSIC,	4	4	4	4	4		P.M.
CHEMISTRY,	5	5	5	5	5		P.M.

* With microscopic work at separate hours.

SUMMER SESSION, 1876.

———o———

Dr. Drake.— Dr. McCallum.— Dr. Godfrey.—	Clinical instruction daily at bed-side in Montreal General Hospital. A limited number of Dresserships and Clinical Clerkships may be obtained on applying to the out-door and attending Physicians.
Dr. Ross.—	Physical Diagnosis.
Dr. Roddick.—	Minor Surgery. Application of Bandages and Splints. Surgical Anatomy on the Cadaver.
Dr. Gardner.—	Electro-Therapeutics; the practical application of Electricity in disease.
Dr. Buller.—	A course of fifteen Lectures on diseases of the Eye, including instructions in the use of the Ophthalmoscope and practical demonstrations of Intra-ocular Lesions.
Dr. Girdwood.—	Practical Chemistry, including Blowpipe manipulations, qualitative analysis, toxicological investigations, &c., &c. Fee, $12.
Dr. Osler.—	Practical Histology—Normal and Pathological. A course of twenty-five lessons. Microscopes, re-agents and material provided. Fee, $15. (To be devoted, after paying necessary expenses, to Physiological Laboratory Fund.)
Dr. Osler.—	Practical Pathology—a course of twenty demonstrations in the Post-mortem Room.

All the Lectures and Demonstrations will be free, with the exception of the Practical Histology and Practical Chemistry courses. The latter forms part of the curriculum, and may be taken by students either in the Winter or Summer Sessions.

The Session will begin on May 1st, and continue three months.

For further information apply to the Registrar.

Faculty of Law.

The Principal (Ex-officio).

Professors :—ABBOTT.
LAFLAMME.
CARTER.
TRENHOLME.
WURLELE.
KERR.

Professors :—DOUTRE.
RAINVILLE.

Lecturers :—ARCHIBALD.
LAREAU.
HUTCHINSON.

Dean of the Faculty.—Hon. J. J. ABBOTT, Q.C., D.C.L.

Acting Dean.—Professor WM. KERR, Q.C., D.C.L.

Registrar of the Faculty.—J. S. ARCHIBALD, B.A., B.C.L.

Matriculation Examiners of the Faculty.—Lecturers J. S. ARCHIBALD, B.A., B.C.L. and EDMOND LAREAU, B.C.L.

The Classes in Law will commence on Monday the Second October, 1876, and will extend to March 31st 1877.

The Lectures of the Faculty will close on Friday the 2nd of March, 1877, and the Examinations will be held in the William Molson Hall, at the head of McGill College Avenue, from 3 to 9 p.m., on the 8th, 9th, 12th, 13th, 14th, 15th, and 16th, days of March, 1877.

The Lecture Rooms of the Faculty are situated in the Molson's Bank Chambers, in St James Street.

The complete course of study in this Faculty extends over three years ; but in may be shortened to two years, when the student matriculates in the third year of his indentures.

Students who avail themselves of the privilege of attending two years only, will nevertheless be required to pass an examination in the subject comprised in the three years' course.

Matriculated Students who do not take the whole course are classed as Partial Students, and are not entitled to proceed to the Degree of B. C. L.

Occasional Students will be received without matriculation, for attendance on any particular series of Lectures.

Students who have completed their course of three years,—or of two years, if they have commenced in the third year of their

Indentures,—and have passed a satisfactory examination, will be entitled, upon the certificate and recommendation of the Faculty, to the Degree of Bachelor of Civil Law.

COURSE OF STUDY.

FIRST YEAR.

Legal History	Lecturer LAREAU.
Civil Law :—	
Persons	Professor RAINVILLE.
Property	
Ownership	
Roman Law :—	
Institutes of Justinian, B. I.	Professor TRENHOLME.
Gaius, C. I.	
Maine, Chapters I. to IV.	
Civil and Commercial Law :—	
Obligations	Professor WURTELE.
Civil Procedure :—	
Introduction	Professor DOUTRE and Lecturer HUTCHINSON.

SECOND YEAR.

Legal Bibliography	Lecturer LAREAU.
Civil Law :—	
Lease	
Rents	
Transaction	
Suretyship	
Civil Law :—	
Usufruct	Professor RAINVILLE.
Real Servitudes	
Gifts and Wills	
Substitutions	
International Law	Professor KERR.
Civil and Commercial Law :—	
Sales	
Roman Law :—	
Institutes of Justinian, B. II. and B. III. to Title 14	Professor TRENHOLME.
Gaius, Chaps. 2 and 3	
Maine, Chapters V. to VIII.	
Commercial Law :—	
Partnership	Professor WURTELE.
Corporations	
Bills of Exchange	
Civil Procedure :—	
First Part	Professor DOUTRE and Lecturer HUTCHINSON.
Constitutional Law and Election Law	Lecturer ARCHIBALD.

THIRD YEAR.

Civil Law :—	
Privileges and Hypothecs	Lecturer LAREAU.
Prescription	
Imprisonment in Civil Cases	

Civil Law:— Successions, Marriage Covenants, Dower	Professor RAINVILLE.
International Law:—	Professor KERR.
Commercial Law:— Carriage of Persons, Insurance, Bottomry and Respondentia	
Roman Law:— Institutes of Justinian, B. III. from Title 14. Maine, Chapters IX and X	Professor TRENHOLME.
Civil Law:— Mandate, Loan, Deposit, Pledge	
Evidence	
Commercial Law:— Merchant Shipping, Affreightment, Insolvency	Professor WURTELE.
Civil Procedure. Second Part	Professor DOUTRE. Lecturer HUTCHINSON.
Criminal Law and Procedure	

FACULTY REGULATIONS.

1. Any person desirous of becoming a Matriculated Student, shall apply to the Dean of the Faculty for examination and entry in the Register of Matriculation, and shall procure a ticket of Matriculation and tickets of admission to the Lectures for each Session of the Course. (Students are requested to call on the Registrar who will furnish them with the necessary forms.)

2. Candidates for Matriculation shall pass an examination, satisfactory to the Faculty of Law, in Latin, French, English, Mathematics and Ancient and Modern History, and the books upon which such examination shall be had, shall be from time to time fixed by the Faculty.

3. Students in Law shall be known as of the First, Second and Third Years and shall be so graded by the Faculty. In each year, Students shall take the studies fixed for that year and those only, unless by special permission of the Faculty.

4. The Register of Matriculation shall be closed on the 1st of November in each year, and return thereof shall be immediately made by the Dean to the Registrar of the University. Candidates applying thereafter may be admitted on a special examination to be determined by the Faculty; and if admitted, their names shall be returned in a supplementary list to the Registrar.

5. Persons desirous of entering as Occasional Students shall apply to the Dean of the Faculty for admission as such Students, and shall obtain a ticket, or tickets, for the class or classes they desire to attend.

6. Students who have attended Collegiate courses of study in other Universities for a number of terms or sessions, may be admitted, on the production of certificates, to a like standing in this University, after examination by the Faculty.

7 All Students shall be subject to the following regulations for attendance and conduct :—

(1) A Class-Book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted ; and the said Class-book shall be submitted to the Faculty at a meeting to be held between the close of the lectures and the commencement of the examinations ; and the Faculty shall after examination of such class-book, decide what students shall be deemed to have been sufficiently regular in their attendance to entitle them to proceed to the examination in the respective classes.

(2) Punctual attendance on all the classes proper to his year is required of each student. Professors will note the attendance immediately on the commencement of their lectures, and will omit the names of Students entering thereafter, unless satisfactory reasons are assigned. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class-room, if persisted in after admonition by the Professor, will be reported to the Dean of the Faculty, who may reprimand the student or report to the Faculty, as he may decide. While in the building, or going to or from it, students are expected to conduct themselves in the same orderly manner as in the Class-rooms. Any Professor observing improper conduct in the Class-rooms, or elsewhere in the building, will admonish the student ; and, if necessary, report him to the Dean.

(3) When Students are reported to the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, disqulify from competing for prizes or honours, suspend from classes, or report to the Corporation for expulsion.

(4) Any Student injuring the furniture or building, will be required to repair the same at his own expense, and will, in addition, be subject to such penalty as the Faculty may see fit to impose.

(5) The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a Session, shall in each case be determined by the Faculty.

(6) All cases of discipline involving the interests of more than one Faculty, or of the University generally, shall be reported to the Principal, or, in his absence, to the Vice-Principal.

8. At the end of every Session there shall be a general examination of all the Classes, under the Superintendence of the Professors, and of such other Examiners as may be appointed by the Corporation, which examination shall be conducted by means of printed questions, answered by the students in writing, in the presence of the Examiners. The result shall be reported as early as possible to the Faculty, which shall decide the general standing of the Students accordingly.

9. Each Professor shall deliver at least two Lectures in each week. Each Lecture shall be of one hour's duration ; but the Professors shall have the right from time to time to substitute an examination for any such Lectures.

10. No Student shall be considered as having kept a Session, unless he shall have attended regularly all the courses of Lectures, and shall have passed the

Sessional Examinations to the satisfaction of the Faculty, in four classes in the First and Second Years, and in five in the Third Year.

11. The Faculty shall have the power, upon special and sufficient cause shown, to grant a dispensation to any Student from attendance on any particular Course or Courses of Lectures, but no distinction shall, in consequence, be made between the Examinations of such Students, and those of the Students regularly attending Lectures. No Student shall pass for the degree of B. C. L. unless he has prepared a Thesis either in French or English which shall have been approved by the Faculty.

12. The subject of such Thesis shall be left to the choice of the Student, but it must fall within the range of study of the Faculty, and shall not exceed twenty pages of thirty lines each. Each student shall on or before the first day of February forward such Thesis to the Registrar of the Faculty, marked with the *nom de plume* which he shall adopt, and accompanied with a sealed envelope bearing the same *nom de plume* on it, and containing inside his name and the subject of his Thesis, and the envelope shall be opened in the presence of the Faculty after the final decision shall be given on the respective merits of the several Theses.

13. The Elizabeth Torrance Gold Medal, in the Faculty of Law, shall be awarded to the Student who being of the Graduating Class, having passed the Final Examination, and having prepared a Thesis of sufficient merit in the estimation of the Faculty to entitle him to compete, shall take the highest marks in a special Examination for the Medal, which Examination shall include the subject of Roman Law.

14. Every candidate before receiving the Degree of B. C. L., shall make the following declaration. :—

Ego A. B. polliceor, me, pro viribus meis, studiosum fore communis hujus Universitatis boni, operamque daturum ut decus ejus ac dignitatem amplificem, et officiis omnibus ad Baccalaureatus in Jure Civili gradum pertinentibus fungar.

15. The Fees exigible in this Faculty are as follows :—

Matriculation Fee.....	$ 5 00
Sessional Fee by Ordinary Students.....	20 00
Sessional Fee by Occasional or Partial Students, for each course.	5 00
Graduation Fee, including Diploma and Case.....	10 00

All of which Fees shall be paid in advance. But Students already on the Books of the University shall not be required to pay any Matriculation Fee.

1. Every Candidate for the Degree of D.C.L. in Course, under Chap. VIII., Section 4, of the Statutes of the University, shall be required to pass within four years from his graduation as B.C.L., such examination as shall be prescribed by the regulations of the Faculty of Law ; unless he shall have graduated as a B.A. of this University, either in Course or *ad eundem*. And not less than two months before proceeding to the Degree of D.C.L., the Candidate shall deliver to the Faculty of Law twenty-five printed copies of a Thesis or Treatise upon a subject selected or approved by the Faculty ; such Thesis to contain not less than twenty-five octavo pages of printed matter, and possessing such a degree of literary and

scientific merit as shall in the opinion of the Faculty justify them in recommending him for that Degree. And in addition to the foregoing qualifications, the Candidate shall pay to the Secretary of the Faculty annually during term for the retention of his name on the books of the Faculty, during the said period of twelve years, a fee of two dollars, to be added to the Library fund of the Faculty.

Except as regards the Thesis, this regulation applies only to those who have taken the degree of B. C. L. subsequently to October, 1873. The examination under the above rule is as follows :—

(1) *International Law* :—

Phillimore; Wharton, Conflict of Laws; Fœlix, Droit International Privé.

(2) *Roman Law* :—

Gaii Commentarii, IV. ; Pauli Sententiæ; Pomponii Fragmentum de origine juris D. ·. 2. ; Novellæ Justiniani, cxviii. cxxvii. ; Ortolan, Instituts de Justinien, Vol. I. ; Mommsen's History of Rome.

(3) *Constitutional Law.*—

Hallam, Constitutional History of England ; May, Constitutional History of England ; Mill, Representative Government; The British North America Act, and cases thereunder.

(4) *Philosophy of Law* :—

Ahrens, Cours de Droit Naturel ; Austin, Jurisprudence ; Markby, Elements of Law ; Maine, Ancient Law.

(5) *Droit Civil et Commercial.*—

Pothier, Obligations, Vente et Communauté ; Marcadé, Obligations, Vente et Communauté ; Pardessus, Droit Commercial.

The Examination will be written and oral ; and translation from the Latin, French or English texts, as well as familiarity with the subject, will be required.

Prizes, Honours and Standing.

Session 1875-6.

FACULTY OF LAW.

GRADUATING CLASS.

ELIZABETH TORRANCE MEDAL { CHARLES J. DOHERTY. / JAMES N. GREENSHIELDS. } equal.

Second in General Standing.—JOHN S. McDONALD.

Prize for best Thesis.—ODILLON DESMARAIS.

Standing in the Several Classes

INTERNATIONAL LAW.—PROFESSOR KERR.

First, DOHERTY.
Second, GREENSHIELDS.

COMMERCIAL LAW.—PROFESSOR WURTELE, Q. C.

First, GREENSHIELDS and DOHERTY, equal.
Second, BISAILLON.

ROMAN LAW.—PROFESSOR TRENHOLME.

First, DOHERTY and GREENSHIELDS, equal.
Second, LEBOURVEAU.

CIVIL PROCEDURE.—PROFESSOR DOUTRE.

First, DOHERTY.
Second, GREENSHIELDS.

CIVIL LAW.—PROFESSOR RAINVILLE.

First, GREENSHIELDS.
Second, DOHERTY.

CRIMINAL AND CONSTITUTIONAL LAW.—LECTURER ARCHIBALD.

First, McDONALD.
Second, DOHERTY and GREENSHIELDS, equal.

LEGAL HISTORY AND BIBLIOGRAPHY.—LECTURER LAREAU.

First, GREENSHIELDS.
Second, DOHERTY.

SECOND YEAR.

Students who have passed the Sessional Examination for the second year;—

GOODHUE, PURCELL, CAPSEY, McCORKILL, GARON, PALLISSER, CHARETTE, MONK, LASALLE, BERGERM, PELLETIER, KNAPP, ETHIER.

GENERAL STANDING.—GOODHUE, 1st; PURCELL, 2nd.

Ranking of Students in the Several Classes for the Second Year.

INTERNATIONAL LAW AND COMMERCIAL SALES.—Professor Kerr, Q. C.

First, Capsey, Professor's prize.
econd, Goodhue.

COMMERCIAL LAW.—Professor Wurtele, Q. C.

First, Purcell.
Second, Goodhue.

ROMAN LAW.—Professor Trenholme.

First, Goodhue.
Second, Purcell.

CIVIL PROCEDURE.—Professor Doutre.

First, Goodhue,
Second, Capsey.

CIVIL LAW.—Professor Rainville.

First, McCorkill.
Second, Purcell.

CRIMINAL AND CONSTITUTIONAL LAW.—Lecturer Archibald.

First, Purcell.
Second, Goodhue.

LEGAL HISTORY AND BIBLIOGRAPHY.—Lecturer Lareau.

First, Goodhue.
Second, Purcell.

FIRST YEAR.

Students who have passed the Sessional Examinations of the First Year ;—Brook, Crimmen, Migneault, Taylor, Corregan, Cross, Pope, Crothers, McGoun, Duffy, Bissonette, Abbott, Cavanagh, Varin, Brown, Gaudet, Lanctot, Ritchie, McKinnon, Morrison, Robertson, Faribeault, Fay, McGibbon, Levy, Beauchamp, Girouard, Morin, Berthelot, Leblanc, Adam, Ward, Laviolette.

GENERAL STANDING IN ALL THE CLASSES.—Brook, Crimmen and Migneault, equal, 1st prize ; Taylor, 2nd prize.

Standing of Students in the Several Classes for the First Year :

OBLIGATIONS.—Professor Wurtele.

First, Gaudet and Migneault ; equal.
Second, Brook, Crimmen and Taylor ; equal.

ROMAN LAW.—Professor Trenholme.

First, Crimmen and Crothers ; equal.
Second, Abbott and Taylor ; equal.

CIVIL PROCEDURE.—Professor Doutre.

First, Duffy.
Second, Brook and Crimmen; equal.

CIVIL LAW.—Professor Rainville.

First, Migneault and Corrigan; equal.
Second, Varin and Brook; equal.

LEGAL HISTORY AND BIBLIOGRAPHY.—Lecturer Lareau.

First, Migneault.
Second, Brook.

FACULTY OF MEDICINE.

Robert H. W. Powell, of Ottawa, for Thesis and best Examination in all the branches of Study.—Holmes Gold medal.

Charles H. Murray, B. A., Montreal, Prize for the best Examination in the Final Branches.

Richard L. MacDonnell, B. A., Montreal, special prize for General Proficiency.

Students deserving honourable mention in the Final Branches:—MacDonnell, Ritchie, Young, Hunt, Smith, Secord and Lang.

Alexander C. Fraser, Wallaceburg, Ont., Prize for the best Examination in the Primary Branches.

Students deserving Honourable mention in the Primary Branches:—Messrs. Bell, Cotton, Oakley, Smellie, Jamieson, Miner and Armstrong.

D. F. Smith, Professor's Prize in Practical Chemistry.

W. J. Neilson, W. D. Oakley, Prizes in Botany.

A. Henderson, Prize in Zoology.

W. D. Oakley, Senior Prize in Practical Anatomy.

W. J. Neilson, Junior Prize in Practical Anatomy.

Deserving Honourable mention in Practical Anatomy.

Senior Class.—Greenwood, Vineberg, Smith, (D. F.), Cameron, McGuigan, Fraser.

Junior Class.—Webster and McCrimmon, equal; Lawford, Heard, Shaw and Stevenson, equal; McCully.

PASSED THE EXAMINATIONS IN BOTANY AND ZOOLOGY.

Botany.

Class I.—W. J. Neilson, W. D. Oakley, B. F. Butler, D. F. Gurd, M. C. Baker, J. L. Brown, H. Stevenson, J. Smith, W. F. Shaw, J. B. Lawford, A. W. Imrie, E. McNeil, J. B. Carman, P. E. Carman, H. H. Gardner, H. C. Feader, J. A. McDonald, A. Henderson, A, D. Webster.

Class II.—J. McCarroll, J. G. Scott, S. McNee, T. A. Kidd, F. McLennan, F. Hanna, W. Sutherland, J. C. McRae, F. H. Mewburn, J. M. Wilson, H. A. Burwash, C. J. Jamieson, J. A. Smiley, M. Seymour, M. Beckstead.

Class III.—W. R. Law, C. D. Bancroft, J. S. Edwards, S. R. Hebert, M. Labelle, J. B. Menzies, E. W. Setree, W. J. Prendergast, T. A. Page, R. C. McDonald, G. H. Oliver, C. A. Weagant, J. McCrimmon, G. C. McCullough, J. E. McEvenue, W. D. M. Bell, J. A. Mattice, G. Tate, A. P. Poaps, M. Karmon, A. Boyle, W. B. Hall, W. P. Mullin.

Zoology.

Class I.—A. Henderson, A. D. Webster.

PASSED THE EXAMINATIONS IN THEORETICAL CHEMISTRY.

F. S. Greenwood, James J. Guerin, J. D. Cameron, F. J. Stafford, M. C. Rutherford, J. R. Fraser, Milton McCrimmon, H. H. Gardner, W. B. Gibson, A. P. Chisholm, Robert Bell, H. N. Vineberg, George W. Kirk, N. Ayer, D. F. Smith, J. K. McKinlay, M. Beckstead.

FACULTY OF ARTS.

GRADUATING CLASS.

B. A. Honours in Classics.

Robert A. Crothers.—First Rank Honours and Chapman Gold Medal.

B. A. Honours in Natural Science.

Henry H. Lyman.—First Rank Honours and Logan Gold Medal.

B. A. Honours in Mental and Moral Philosophy.

Archibald McGoun.—First Rank Honours and Prince of Wales Gold Medal.
Elson Irving Rexford.—First Rank Honours.

B. A. Honours in English Language, Literature and History.

John Graham.—First Rank Honours and Shakspere Gold Medal.
Henry Thomas Duffy.—Second Rank Honours.

THIRD YEAR.

EUGENE LAFLEUR.—First Rank Honours in Classics and First Prize; First Rank Honours in Mental and Moral Philosophy and Prize; First Rank General Standing.

CHARLES H. GOULD.—First Rank Honours in Classics and Second Prize; Prize in German.

MATTHEW H. SCOTT.—First Rank Honours in Natural Science and Logan Prize; First Rank General Standing.

JERVOIS A. NEWNHAM.—First Rank Honours in Mental and Moral Philosophy; Prize in Zoology.

CALVIN E. AMARON.—First Rank Honours in Mental and Moral Philosophy.

WILLIAM H. WARRINER.—First Rank General Standing; Prize for Collection of Plants; Stewart Prize for Hebrew.

PASSED THE SESSIONAL EXAMINATIONS.

Lafleur, Warriner, Scott, Newnham, Gould, Robertson, Amaron, McGregor (A.F.), Forneret, McGibbon.

SECOND YEAR.

DONALD C. ROSS.—(Prince of Wales College, Charlottetown, P. E. I.)—Second Rank Honours in Mathematics and Prize; First Rank General Standing; Prize in English.

HASTEWELL W. THORNTON.—(Felsted Grammar School, England.)—Second Rank Honours in Mathematics; Prize in Botany.

JAMES ROSS.—(Huntingdon Academy.)—First Rank General Standing; Prize in Logic; Prize in German.

JAMES THOMAS DONALD.—(High School Montreal.)—First Rank General Standing.

EDMUND J. GUERIN.—(Montreal College.)—Prize in French.

PASSED THE SESSIONAL EXAMINATIONS.

Ross (James), Ross (Donald C.), Donald, Dawson, McFadyen, Blakely, Thornton, Guerin, Torrance (Fred.), McLaren, Sweeny, Lyman (A. Clarence).

FIRST YEAR.

WILLIAM MCCLURE.—(Lachute Academy).—First Rank Honours in Mathematics and Prize; First Rank General Standing; Second Prize in Classics; Prize in French; Prize in Chemistry.

RICHARD MCCONNELL.—(Private Tuition).—Second Rank Honours in Mathematics and Prize.

ROBERT EADIE.—(Brantford High School, Ont).—First Rank General Standing; First Prize in Clasics; Prize for English Essay.

WILLIAM D. LIGHTHALL.—(High School, Montreal).—Prize in English.

ERNEST J. HOUGHTON.—(Diocesan School, Isle of Wight, England).—Prize for English Essay.

PASSED THE SESSIONAL EXAMINATIONS.

McClure, Eadie, Lighthall, Cross, Stevens, Morrison, Howard (R. J. B.), McConnell, Redpath, Robertson, Allen, Shearer, Meighen, Rutledge, McKibbin, (R.), Houghton, Haley.

DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

GRADUATING CLASS.

WILLIS CHIPMAN.--Certificate of Merit in Engineering; First Rank Honours in Natural Science.

MIDDLE YEAR.

WILLIAM J. SPROULE.—(Toronto High School).--Prize in Engineering Subjects.—Prize in Zoology.

PASSED THE SESSIONAL EXAMINATION.

Sproul, Jones, Wardrop, Thompson.

JUNIOR YEAR.

JOHN SWAN.—(High School, Montreal).--First Rank Honours in Mathematics and Prize.

JOHN S. O'DWYER.—(Granby Academy).—Prize in French.

FRANK ADAMS.—(High School, Montreal).—Prize in Chemistry.

PASSED THE SESSIONAL EXAMINATIONS.

O'Dwyer, Swan, Adams, Scriver.

PASSED FOR METEOROLOGICAL CERTIFICATES.

Class I.—Chipman, Lyman (H. H.). *Class II.*—Hethrington, Hawley. *Class III.*—Watson, Graham.

The Earl of Dufferin's Gold Medal for a Prize Essay in History has been awarded to KUTUSOFF N. MCFEE, B.A.

In the Examinations in September 1875, the following *Scholarships* and *Exhibitions* were awarded :—

THIRD YEAR.--NEWNHAM, WARRINER and LAFLEUR;--*W. C. MacDonald Scholarships.*

SECOND YEAR—ROSS (JAMES), DONALD, and ROSS (DONALD);—*W. C. MacDonald Exhibitions.*
THORNTON;—*T. M. Taylor Exhibition.*

FIRST YEAR.—EADIE and STEVENS;—*W. C. MacDonald Exhibitions.*
KNOWLES;—*Jane Redpath Exhibition.*
LIGHTHALL;—*Governors' Exhibition.*

CHRISTMAS EXAMINATIONS, 1875.

ORDINARY COURSE IN ARTS.

GREEK.

THIRD YEAR.—*Class I.*—Lafleur, Gould, Warriner, Newnham, Scott. *Class II.*—Pedley (C. S.), Robertson, Amaron;—Anderson and McGregor, equal;—Forneret and McGibbon, equal. *Class III.*—Atwater.

SECOND YEAR.—*Class I.*—Ross (Donald), Ross (James), Donald. *Class II.*—Thornton;—McFadyen and McLaren, equal;—Blakely, Dawson. *Class III.*—Lyman, Guerin, McKillop;—Sweeny and Torrance, equal; Ewing, Taylor.

FIRST YEAR.—*Class I.*—Eadie, McClure, Stevens, Morrison. *Class II.*—Knowles; Cross and Lighthall and Robertson, equal;—McConnell and Shearer, equal;—McKibbin and McLean and Silcox, equal. *Class III.*—Haley and Meighen, equal;—Lane and Redpath, equal;—Allen and Wood, equal;—Culp and Houghton and Roy, equal.

LATIN.

THIRD YEAR.—*Class I.*—Lafleur, Gould, Scott, Warriner, Newnham;—Anderson and Pedley, (C. S.), equal. *Class II.*—Forneret;—Amaron and Robertson, equal;—McGibbon, McGregor. *Class III.*—Atwater, Chubb.

SECOND YEAR.—*Class I.*—Ross (Donald), Ross (James), Donald. *Class II.*—McFadyen, Blakely, Thornton;—Guerin and Taylor, equal. *Class III.*—Torrance, Sweeny;—Dawson and McKillop, equal;—Lyman and McLaren and Ewing, equal.

FIRST YEAR.—*Class I*—Eadie and Stevens, equal;—McClure, Morrison, Shearer. *Class II.*—Knowles, Cross;—McLean and Robertson, equal;—McConnell, Meighen;—Haley and Lane and Redpath, equal;—Lighthall. *Class III.*—McKibbin and Imrie, equal;—Wood, Houghton, Roy, Culp;—Rutledge and Allen, equal.

ENGLISH AND RHETORIC.

FOURTH YEAR.—(*English Literature*)—*Class I.*—Duffy, Graham, Watson.

THIRD YEAR.—(*Rhetoric*)—*Class I.*—Lafleur, Scott, Robertson, Gould, McGibbon, *Class II.*—Atwater, Chubb.

FIRST YEAR.—(*English Grammar and Composition*)—*Class I.*—Morrison, Stevens, McClure, Lighthall, Cross, Eadie, Edmunds. *Class II.*—Lane, Shearer, Robertson, Knowles, McKibbin, Haley, Rutledge, Howard, Meighen, McLean, Redpath, Roy, Houghton, McConnell, Culp. *Class III.*—Campbell, Wood, Allen.

MENTAL PHILOSOPHY.

FOURTH YEAR.—*Class I.*—Rexford, Pedley (H.), Lyman (H. H.), McGoun, Watson. *Class II.*—Cox, Hughes, Duffy, Langford, Kettlewell. *Class III.*—Malcolm, Matheson, Gray, McCarroll.

MORAL PHILOSOPHY.

THIRD YEAR.—*Class I.*—Pedley (C. S.), Warriner;—Amaron and Lafleur and Scott, equal;—Silcox. *Class II.*—Anderson, McGregor;—Gould and Newnham, equal;—Barltrop and Forneret and Kettlewell, equal;—Baugh. *Class III.*—Meyers and McGibbon, equal;—Robertson, Langford, Atwater, Edwards, Cunningham, Chubb, Hobbs.

ELEMENTARY PSYCHOLOGY.

SECOND YEAR.—*Class I.*—Ross (James), Dawson, Ross (Donald), Donald, Blakely, Thornton, McFadyen, Lyman (A. C.). *Class II.*—Kettlewell, Ewing, McKillop, Torrance, Guerin. *Class III.*—Langford, Wright, McLaren, Evans, Willett, Wolcott, Sweeny.

HEBREW.

SENIOR YEAR.—*Class I.*—Pedley (C. S.). *Class II.*—McGregor (A. F.), Boudreau *Class III.*—None.

JUNIOR YEAR.—*Class I.*—McKillop, McClure;—McKibbin, and Shearer, equal;—Eadie, Silcox, Houghton;—Ewing and Rivard, equal. *Class II.*—Crouchet, Bailie. *Class III.*—McLean.

MATHEMATICAL PHYSICS.

FOURTH YEAR.—*Class I.*—None.—*Class II.*—Duffy. *Class III.*—McGoun, Watson, Graham, Matheson, Gray, Cox, Pedley (H.).

THIRD YEAR.—*Class I.*—Newnham, Pedley (C. S.). *Class II.*—Lafleur. *Class III.*—Scott and Warriner, equal;—Gould, Forneret, Robertson (R.), Amaron.

MATHEMATICS.

SECOND YEAR.—*Class I.*—Ross (J.), Blakely;—Dawson (R.) and Ross (D.), equal. *Class II*—Thornton, Ewing.—*Class III.*—McFadyen, Donald, Torrance (F), Sweeny, McLaren, Lyman (A.C.), McKillop, Guerin.

FIRST YEAR.—*Class I.*—Morrison, Knowles;—McClure and Stevens, equal;—Eadie. *Class II.*—Shearer, Cross. *Class III.*—McConnell, Lighthall, Meighen;—Allen and Haley, equal;—Cochrane and Edmunds, equal;—Houghton and Redpath, equal;—Wood;—Culp and Howard (R. J. B.), and McLean and Roy, equal;—Robertson (H.).

EXPERIMENTAL PHYSICS.

FOURTH YEAR.—*Class I.*—Lyman (H.H.) and Rexford, equal. *Class II.*—None. *Class III.*—Duffy, Watson.

THIRD YEAR.—*Class I.*—Lafleur. *Class II.*—Scott, Chubb. *Class III.*—Forneret and Gould and McGibbon, equal;—Robertson (R.), Amaron.

GEOLOGY, (MINERALOGY AND LITHOLOGY).

FOURTH YEAR.—*Class I.*—Lyman (H.H.), Crothers. *Class II.*—Pedley, Watson, Matheson, Cox, Gray, Cossar. *Class III.*—Malcolm, Hughes.

ZOOLOGY.

THIRD YEAR.—*Class I.*—Scott, Warriner, Pedley (C. S.), Newnham, Forneret, Foord, McGregor. *Class II.*—Atwater, Anderson. *Class III.*—Chubb, Livingston.

BOTANY.

SECOND YEAR.—*Class I.*—Donald, Dawson, Ross (J.), Ross (D.), Lyman, (A.C.), McFadyen, Thornton, Ewing, Blakely, Kettlewell. *Class II.*—Adams, Guerin, Torrance, Langford, Barltrop, McLaren, McKillop. *Class III.*—Sweeny, Livingston, Baillie.

CHEMISTRY.

FIRST YEAR.—*Class I.*—Shearer, McClure, Eadie, Morrison;—Meighen and Stevens, equal. *Class II.*—Cochrane, McConnell; Knowles and Robertson, equal. *Class III.*—McKibbin, Cross, Howard (R.); —Caverhill and Lighthall, equal;—Allen, Anderson, Rutledge, Haley, Redpath, McLean, Edmunds, Wood.

FRENCH.

FOURTH YEAR.—*Class I.*—McGoun. *Class II.*—None. *Class III.*—None.

THIRD YEAR.—*Class I.*—None. *Class II.*—None. *Class III.*—Robertson, Chubb.

SECOND YEAR.—*Class I.*—Ross (James), Ross (D. C.), Guerin, Donald.—*Class II.*—Blakely, Dawson. *Class III.*—Thornton and Torrance, equal;—McLaren, Sweeny, McKillop, Lyman, Evans.

FIRST YEAR.—*Class I.*—McClure, Lane;—Cross and Redpath and Wood, equal;—Lighthall, Howard, Cochrane, Eadie. *Class II.*—Allen, Edmunds, McConnell. *Class III.*—Knowles;—Campbell and Morrison, equal;—Robertson, Haley, Meyers, Stevens, Meighen.

DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

ENGINEERING.

Special Subjects.

SENIOR YEAR.—*Class I.*—Chipman. *Class II.*—Hawley, Hethrington. *Class III.*—None.

MIDDLE YEAR.—*Class I.*—Sproule, Ross (P.), Nelson. *Class II.*—Jones;—Thompson and Walbank, equal. *Class III.*—Rogers.

JUNIOR YEAR.—*Class I.*—O'Dwyer, Hall. *Class II.*—Swan, Adams, Hull. *Class III.*—Scriver, Perry, Power.

USE OF THE BLOWPIPE AND ASSAYING.

MIDDLE YEAR.—*Class I.*—None. *Class II.*—McNie. *Class III.*—Howard, (W.),

MATHEMATICAL PHYSICS.

SENIOR YEAR.—*Class I.*—Chipman. *Class II.*—None. *Class III.*—Hethrington.

MIDDLE YEAR.—*Class I*—Sproule. *Class II.*—None. *Class III.*—Thompson, Ross (P.), Jones, Rogers, Walbank, Wardrop.

MATHEMATICS.

MIDDLE YEAR.—*Class I.*—Jones, Ross (P.), Sproule. *Class II.*—Wardrop. *Class III.*—Rogers, Thompson, Walbank.

JUNIOR YEAR.—*Class I.*—O'Dwyer and Swan, equal. *Class II.*—None. *Class III.*—Adams;—Hull and Scriver, equal;—Hall and Perry, equal;—Ferguson.

EXPERIMENTAL PHYSICS.

SENIOR YEAR.—*Class I.*—Chipman. *Class II.*—Hethrington. *Class III.*—None.

MIDDLE YEAR.—*Class I.*—Sproule. *Class II.*—Ross (P. D.). *Class III.*—Wardrop, Jones, Rogers, Nelson, Thompson.

GEOLOGY, (MINERALOGY AND LITHOLOGY.)

SENIOR YEAR.—*Class I.*—Chipman. *Class II.*—Hawley, Hethrington.

ZOOLOGY AND PALÆONTOLOGY.

MIDDLE YEAR.—*Class I.*—Sproule, Nelson, Ross (P.). *Class II.*—Walbank, McNie, Jones, Howard, Thompson, Rogers. *Class III.*—Casswell, Clements, Wardrop.

CHEMISTRY.

JUNIOR YEAR, AND MIDDLE YEAR IN PART.—*Class I.*—Adams, O'Dwyer. *Class II.*—Swan, Wardrop, Howard (W.), Jones, Hall. *Class III.*—Scriver, Hull, Walbank, Thompson, Perry, Ross (P.).

ENGLISH.

JUNIOR YEAR.—(*Grammar and Composition.*)—*Class I.*—None. *Class. II.*—O'Dwyer, Scriver, Adams, Swan, Cochrane, Hull, Hall. *Class III.*—Perry, Smith, Ferguson.

FRENCH.

SENIOR YEAR.—*Class I.*—None. *Class II.*—Chipman. *Class III.*—Hawley.

MIDDLE YEAR.—*Class I.*—None. *Class II.*—Sproule, Jones, Walbank. *Class III.*—Ross (Ph.), Thompson, Clements.

JUNIOR YEAR.—*Class I.*—O'Dwyer, Swan. *Class II.*—Smith, Perry, Hall, *Class III.*—Adams;—Morkil and Scriver, equal;—Ferguson.

SESSIONAL EXAMINATIONS, 1876.

ORDINARY COURSE IN ARTS.

GREEK.

B. A. Ordinary.—*Class I.*—Crothers and Pedley (Hugh), equal;—Watson. *Class II.*—Cox. *Class III.*—Gray and Matheson, equal.

Third Year.—*Class I.*—Lafleur, (First Prize);—Gould, (Second Prize);—Warriner;—Newnham and Scott, equal. *Class II.*—Anderson, Amaron, Robertson. *Class III.*—McGibbon, McGregor, Forneret.

Second Year.—*Class I.*—Ross (Donald), Ross (James), Donald, Blakely. *Class II.*—McFadyen;—Lyman (A. C.) and Thornton, equal;—Dawson and Taylor equal;—Torrance. *Class III.*—McKillop and Sweeny, equal;—McLaren, Guerin.

First Year.—*Class I.*—Eadie, (First Prize);—McClure, (Second Prize);—Cross. *Class II.*—Lighthall and Stevens equal;—Morrison;—Howard and Lane, equal;—McConnell and Robertson, equal;—McLean, Shearer, Wood. *Class III.*—Meighen;—Allen and Redpath, equal;—Haley, Rutledge;—Houghton and McKibbin, equal.

LATIN.

B. A. Ordinary.—*Class I.*—Pedley (Hugh), Crothers. *Class II.*—Watson, Cox. *Class III.*—Duffy, Gray, Matheson.

Third Year.—*Class I.*—Lafleur, Gould, Newnham;—Scott and Warriner, equal. *Class II.*—Anderson, McGibbon, McGregor. *Class III.*—Robertson and Amaron, equal;—Forneret.

Second Year.—*Class I.*—Ross (Donald), Ross (James), Donald, Blakely. *Class II.*—Dawson and McFadyen, equal;—Guerin and Thornton, equal;—Lyman (A. C.); McLaren. *Class III.*—Taylor, Torrance, Ewing, Sweeny.

First Year.—*Class I.*—Eadie, McClure, Stevens, Lighthall, Howard. *Class II.*—Morrison, Cross, McLean;—Lane and McConnell, equal;—Robertson Wood, Redpath. *Class III.*—Haley;—Allen and Meighen, equal.

HISTORY.

First Year.—*Class I.*—Eadie and Lighthall, equal;—McClure, Morrison;—Cross and Howard, equal. *Class II.*—McConnell and Lane and Stevens and McKibbin, equal;—Shearer, Wood;—Redpath and Rutledge, equal. *Class III.*—Haley and Robertson, equal;—Allen and Houghton and McLean, equal.

LOGIC, AND MENTAL AND MORAL PHILOSOPHY.

Fourth Year.—(*Mental and Moral Philosophy*)—*Class I.*—Pedley (Hugh);—McGoun and Rexford, equal. *Class II.*—Duffy, Watson. *Class III.*—Kettlewell;—Cox and Matheson, equal;—Gray.

Occasional Students in Fourth Year.—(*Mental Philosophy alone*)—*Class I.*—None. *Class II.*—None. *Class III.*—Hughes, Langford and McKillop, equal.

THIRD YEAR.—(*Moral Philosophy*)—*Class I.*—Lafleur, (prize);—Warriner. *Class II.*—Gould;—Amaron and Scott, equal;—Newnham, McGregor, Meyers, Robertson. *Class III.*—Barltrop, Langford, Forneret, McGibbon, Anderson, Atwater.

SECOND YEAR.—(*Logic*)—*Class I.*—Ross (James), (prize);—Dawson, Blakely, Donald, Thornton, Ross (D. C.). *Class II.*—Guerin, McFadyen;—Ewing and McKillop, equal;—Kettlewell, Torrance, McLaren. *Class III.*—Lyman (A. C.);—Langford and Wright, equal;—Evans, Taylor, Sweeny.

ENGLISH LITERATURE.

B. A. ORDINARY.—*Class I.*—Duffy, Graham, Watson.

THIRD YEAR.—(*Rhetoric*)—*Class I.*—Lafleur and Gould, equal;—Amaron, Scott. *Class II.*—McGibbon and Atwater, equal;—Robertson. *Class III.*—Chubb.

SECOND YEAR.—*Class I.*—Ross (D. C.), (Prize);—Ross (James) and Donald, equal;—Dawson and McFadyen, equal. *Class II.*—Ewing, Thornton, McLaren, McKillop, Blakely. *Class III.*—Guerin, Lyman (E. C.), Torrance, Sweeny.

FIRST YEAR.—*Class I.*—Lighthall, (prize);—McClure;—Eadie, (prize essay); Cross;—Morrison and Stevens, equal. *Class II.*—Houghton, (prize essay);—Rutledge and McKibbin, equal;—McLean;—Allen and Howard, equal;—Lane and Redpath, equal;—Robertson, Shearer. *Class III.*—Wood, McConnell, Haley;—Cochrane and Meighen, equal;—Campbell, Wright.

ENGLISH AND HISTORY.

B. A. ORDINARY.—*Class I.*—Watson, Duffy, Graham.

FRENCH.

THIRD YEAR.—*Class I.*—None. *Class II.*—Chubb, Robertson. *Class III.*—None.

SECOND YEAR.—*Class I.*—Guerin, (prize); Ross (James), Ross (D. C.), Donald. *Class II.*—Dawson, Blakely. *Class III.*—McLaren, Sweeny, McKillop, Taylor, Thornton, Torrance.

FIRST YEAR.—*Class I.*—McClure, (prize); Cross, Lighthall. *Class II.*—Eadie, Lane, Redpath, McConnell, Allen, Wood, Meyers, Cochrane. *Class III.*—Howard (R.), Robertson, Morrison, Stevens;—Campbell and Meighen, equal; Haley.

GERMAN.

THIRD YEAR.—*Class I.*—Gould, (prize).

SECOND YEAR.—*Class I.*—Ross (James), (prize).

FIRST YEAR.—*Class I.*—Cross, Lane. *Class II.*—None. *Class III.*—Lighthall.

HEBREW.

Stewart Prizeman.—W. H. Warriner.

JUNIOR CLASS.—*Class I.*—Ewing, Rutledge. *Class II.*—Shearer and Houghton, equal;—McLean. *Class III.*—McKibbin.

SENIOR CLASS.—*Class I.*—McGregor. *Class II.*—McFadyen. *Class III.*—None

MATHEMATICAL PHYSICS.

B. A. ORDINARY.—*Class I.*—None. *Class II.*—Watson, Pedley (H). *Class III.*—Matheson, Graham, Duffy, McGoun, Cox.

THIRD YEAR.—*Class I.*—Scott and Warriner, equal;—Lafleur. *Class II.*—None. *Class III.*—McGregor (A. F.) and Newnham, equal;—Robertson (R.), Gould, Forneret, Amaron, Chubb, Atwater, McGibbon.

MATHEMATICS.

SECOND YEAR.—*Class I.*—Ross (James), Ross (Donald C.). *Class II.*—Donald, Dawson (R.), McFadyen. *Class III.*—Blakely, Torrance (F.), Thornton, McKillop, Lyman (A. C.), Sweeny, McLaren, Ewing, Guerin, Taylor (E. T.).

FIRST YEAR.—*Class I.*—Stevens, McClure, Shearer, Eadie, Howard (R. J. B.) *Class II.*—McConnell, Morrison, Lighthall, Cross. *Class III.*—Meighen, Cochrane, Redpath, Robertson (H.), Allen (F.), Haley, Rutledge, Houghton, McKibbin, Culp.

HONOUR COURSE.—SECOND YEAR.—*Second Rank Honours.*—Ross (Donald C.), (Prize);—Thornton.

FIRST YEAR.—*First Rank Honours.*—McClure, (Prize).
Second Rank Honours.—McConnell, (Prize).

EXPERIMENTAL PHYSICS.

B. A. ORDINARY.—*Class II.*—Lyman (H. H.), Rexford. *Class III.*—Watson.

THIRD YEAR.—*Class I.*—None. *Class II.*—Gould, Lafleur, Chubb, Robertson (R.) *Class III.*—Amaron, Forneret, Scott, Atwater, McGibbon.

NATURAL SCIENCE.

B. A. ORDINARY.—(*Geology*)—*Class I.*—Lyman (H. H.), Pedley, Crothers. *Class II.*—Watson, Cox. *Class III.*—Gray, Matheson, Hughes.

B. A. HONOURS.—Lyman, First Rank Honours and Logan Medal.

THIRD YEAR.—(*Zoology*)—*Class I.*—Newnham (prize);—Foord, Scott. *Class II.*—Atwater, Warriner, Amaron, Anderson. *Class III.*—McGregor, Forneret, Chubb, Livingstone.

THIRD YEAR HONOURS.—Scott (M.H.), First Rank Honours and Logan Prize.

SECOND YEAR.—(*Botany*)—*Class I.*—Thornton, (prize);—Dawson, Ross (J.); Donald and Ross (D.C.),equal;—McFadyen, Guerin, Lyman, Torrance. *Class II.*—Ewing, Barltrop, McKillop, Kettlewell, Blakely.—*Class III.* McLaren, Sweeny, Taylor.

FIRST YEAR.—(*Chemistry*)—*Class I.*—McClure, (prize); Eadie. *Class II.*—Lighthall, Cross, McConnell. *Class III.*—Morrison, Cochrane, Redpath, Howard, Rutledge, Shearer, Allen, Meighen, Houghton, Stevens, McKibbin, Robertson, Guerin, Wood.

DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

SURVEYING AND LEVELLING.

MIDDLE YEAR.—*Class I.*—Sproule. *Class II.*—Walbank, Wardrop, Thompson. *Class III.*—Rogers, Jones.

First Year.—*Class I.*—O'Dwyer. *Class II.*—Swan, Morkill, Scriver;—Adams and Ferguson, equal;—Hull. *Class III.*—None.

DRAWING.

Senior Year.—*Class I.*—Chipman. *Class II.*—(None). *Class III.*—Hethrington, Hawley.

Middle Year.—*Class I.*—Sproule, Ross. *Class II.*—Wardrop, Jones, Thompson, Rogers, Howard. *Class III.*—(None).

Junior Year.—*Class I.*—(None). *Class II.*—Swan;—O'Dwyer and Ferguson, equal;—Adams and Morkill, equal;—Hull and Smith, equal. *Class III.*—Scriver.

CONSTRUCTION.

Senior Year.—*Class I.*—Chipman. *Class II.*—Hethrington, Hawley. *Class III.*—(None).

Middle Year.—*Class I.*—Sproule and Wardrop, equal. *Class II.*—McNie and Rogers, equal;—Thompson, Walbank, Jones. *Class III.*—Ross, Howard.

APPLIED MECHANICS.

Senior Year.—*Class I.*—Chipman. *Class II.*—(None). *Class III.*—Hawley Hethrington.

PRINCIPLES OF MECHANISM.

Senior Year.—*Class I.*—Chipman. *Class II.*—Hawley. *Class III.*—Hethrington.

DESIGNING AND ESTIMATES.

Senior Year.—*Class I.*—Chipman, Hethrington. *Class II.*—Hawley. *Class III.*—(None).

MENSURATION.

Middle Year.—*Class I.*—Sproule. *Class II.*—Jones;—Walbank and Howard equal. *Class III.*—Rogers, Wardrop, Thompson, Ross.

AGGREGATE CLASS LIST.

Professional Subjects

Senior Year.—*Class I.*—(Entitled to special Certificate)—Chipman. *Class II.*—Hethrington, Hawley.

Middle Year.—*Class I.*—Sproule, (Prize). *Class II.*—Wardrop, Rogers, Jones, Thompson.

Junior Year.—*Class I.*—None. *Class II.*—O'Dwyer, Swan. *Class III.*—Ferguson, Adams, Morkill, Scriver and Hull, equal.

MATHEMATICAL PHYSICS

Senior Year.—*Class I.*—Chipman. *Class II.*—None. *Class III.*—Hawley, Hethrington.

Middle Year.—*Class I.*—Sproule. *Class II.*—Jones. *Class III.*—Thompson, Wardrop, Rogers, Walbank.

MATHEMATICS.

MIDDLE YEAR.—*Class I.*—Sproule, Wardrop. *Class II.*—None. *Class III.*—Jones, Ross (P. D.), Thompson.

JUNIOR YEAR.—*Class I.*—Swan, O'Dwyer. *Class II.*—None. *Class III.*—Scriver, Adams.

HONOUR COURSE.—FIRST RANK HONOURS.—Swan, (Prize).

EXPERIMENTAL PHYSICS.

SENIOR YEAR.—*Class I.*—Chipman. *Class II.*—Hethrington, Hawley.

MIDDLE YEAR.—*Class I.*—Sproule. *Class II.*—Thompson and Walbank, equal. *Class III.*—Jones, Ross (P. D.), Rogers.

GEOLOGY.

SENIOR YEAR.—*Class I.*—Chipman. *Class II.*—Hawley, McNie, Hethrington. *Class III.*—Howard.

HONOUR COURSE.—Chipman, First Rank Honours.

ZOOLOGY.

MIDDLE YEAR.—*Class I.*—Sproule, (prize), Thompson, Ross (P. D.). *Class II.* Walbank, Wardrop, Jones. *Class III.*—McNie, Rogers, Howard.

BOTANY.

JUNIOR YEAR.—*Class I.*—None. *Class II.*—Adams. *Class III.*—None.

CHEMISTRY.

JUNIOR YEAR.—*Class I.*—Adams, (prize). *Class II.*—O'Dwyer. *Class III.*—Jones, Ross (Philip), Swan, Wardrop, Scriver, Thompson, Walbank.

MINING COURSE (ASSAYING AND BLOWPIPE ANALYSIS).

MIDDLE YEAR.—*Class I.*—None. *Class II.*—None. *Class III.*—McNie, Howard.

ENGLISH LANGUAGE AND LITERATURE.

Class II.—O'Dwyer, Scriver, Swan. *Class III.*—Adams.

FRENCH.

SENIOR YEAR.—*Class I.*—None. *Class II.*—None. *Class III.*—Chipman, Hawley.

MIDDLE YEAR.—*Class I.*—None. *Class II.*—Sproule. *Class III.*—Jones, Walbank, Howard, Wardrop.

JUNIOR YEAR.—*Class I.*—O'Dwyer, (prize). *Class II.*—Swan. *Class III.*—Adams and Smith, (equal); Scriver.

GERMAN.

SENIOR YEAR.—*Class I.*—None. *Class II.*—None. *Class III.*—Hethrington.

Scholarships and Exhibitions.

SESSION 1875-6.

SCHOLARSHIPS (Tenable for Two Years).

Year of Commencement.	Name of Scholar.	Subject of Examination.	Annual Value.	Founder of Donor.
1874	Lyman, H. H...	Nat. Science.	$125	W. C. MacDonald, Esq.
1874	McGoun, Arch..	Class.&Mod. Lan.	125	W. C. MacDonald, Esq.
1874	Watson, A. J...	Class.&Mod. Lan.	125	Chas. Alexander, Esq.
1875	Lafleur, E.....	Class.&Mod. Lan.	125	W. C. MacDonald, Esq.
1875	Newnham, J. A.	Science.	125	W. C. MacDonald, Esq.
1875	Warriner, W. H.	Science.	125	W. C. MacDonald, Esq.

EXHIBITIONS (Tenable for One Year).

Second Year.

Name of Exhibitioner.	Annual Value.	Founder or Donor.
Ross, James.....	$125	W. C. MacDonald, Esq.
Donald, J. T.....	125	W. C. MacDonald, Esq.
Ross, Donald.....	125	W. C. MacDonald, Esq.
Thornton, H. W.....	100	T. M. Taylor, Esq.

First Year.

Name of Exhibitioner.	Annual Value.	Founder or Donor.
Eadie, R.....	$125	W. C. MacDonald, Esq.
Stevens, Wm. H	125	W. C. MacDonald, Esq.
Knowles, Charles.....	100	Mrs. Jane Redpath.
Lighthall, Wm. D	100	Governors.

Students of the University.

SESSION 1875-6.

McGILL COLLEGE.

FACULTY OF LAW.

Abbott, Harry Montreal, Q
Adam, Joseph, St. Marie de Monnoir, Q
Beauchamp, Joseph Montreal, Q
Beaulieu, Napoleon Hudon Yamachiche, Q
Bergeron, Horace Rigaud, Q
Berthelot, Louis Henri Montreal, Q
† Bissaillon, Francois Joseph, Laprairie, Q
Bissonnette, Louis Adolphe, Montreal, Q
Brooke, Charles J., Richmond, Q
Brown, William Forbes, Pakenham, O
Buckley, John H. G., England
Capsey, George Stanbridge, Q
Charette, Pierre Quebec, Q
Cooke, Joseph Peter, Drummondville, Q
Corregan, Robert Abernethy, Peterborough, O
Crimmen, William J., Chatham, N. B
Cross, Alexander Selkirk, Montreal, Q
Crothers, Robert Alexander, Clarenceville, Q
Dansereau, Clement, Contrecœur, Q
† Desaulniers, Dionis, Yamachiche, Q
† Desmarais, Odilon, Joliette, Q
† Doherty, Charles J., Montreal, Q
Dorion, Louis Charles W., Montreal, Q
Duffy, Henry Thomas. Durham, Q
Dugas, Leon de Salles, St. Francois de Salles, Q
Ethier, Marc., St. Alexan, Q
Evans, Edward Allan Anderson, Montreal, Q
Faribeault, Joseph Edward, L'Assomption, Q
Fay, John Edward, Abercorn, Q
Flint, William Whitby, O
Forget, Adelard, Ste. Marie de Monnoir, Q
Garon, Alphonso Pierre, Rimouski, Q
Gaudet, Oscar St. Therese, Q
† Gelinas, M., Montreal, Q
Girouard, Joseph St. Benoit, Q
† Glass, James Mitchell, Montreal, Q
Goodhue, Henry S. W., Danville, Q
Graham, D., Port Huron, U. S
† Greenshields, James N., Danville, Q
Kavanagh, M., Montreal, Q
Knapp, Frederick Prescott, O
Lanctot, Husmer St. Constant, Q
Lasalle, Lucien Three Rivers, Q
Laviollette, Pierre Bonget, Chateauguay, Q
Leblanc, Evariste Pierre, St. Martin, Q
† Lebourveau, Stedman Avery, Sherbrooke, Q
Lemire, Anguste L'Assomption, Q
Levy, Charles Emile, Montreal, Q
Levy, Guillaume Ernest, Montreal, Q
McConnell, James Sinclair, Montreal, Q
McCerkell, John Charles J. S., Dunham, Q
† McDonald, John Small, Glenroy, P. E. I
McDougall, John Malcolm, Three Rivers, Q
McGibbon, Robert Davidson, Montreal, Q
McGoun, Archibald, Montreal, Q
McGranahan, William John, Rosendale, U. S
McKinnon, Edmund, Summerside, P. E. I
Malo, Charles Alphonse, L'Assomption, Q
Migneault, Pierre Basile, Worcester, U. S
Monk, Frederick Montreal, Q
Morin, Pierre Alphonse, St. Francis, Q
Morrison, Adelard Napierville, Q
Nicholls, Rev. John, Worcestershire, E
Pallisser, Joseph Lachute, Q
Pelletier, Louis Conrad, Lavaltrie, Q
† Perodeau, Narcisse St. Ours, Q
Pope, Rufus H., Cookshire, Q
Purcell, John D., Montreal, Q
Ritchie, William Frederick, Sherbrooke, Q
Robertson, Robert Barrington, N. S
Sanborn, Samuel B., Sherbrooke, Q
† Scallon, William Joliette, Q
† Taché, Paschal Kamouraska, Q
Taylor, Archibald, B.A., Montreal, Q
Taylor, Benjamin, Perthshire, S
Varin, Joseph Eugene, Terrebonne, Q
Ward, George B., B.A., England
Wilson, Robert William, England

† B. C. L. 1876.

FACULTY OF MEDICINE.

Alcorn, John H., Montreal, Q
Armstrong, George E., Montreal, Q
Ayer, Nehemiah, Woodstock, N.B
† Baynes, Donald, M. A. Montreal, Q
Beckstead, Morris, Grantly, O
Bell, James, North Gore, O
Bell, Robert, Montreal, Q
Bell, William D. M., Ottawa, O
Boyle, Albert D., Charlottetown, P.E.I
Brennan, Peter, Perth, O
Brodie, John, North Georgetown, Q
Brown, James L., Chesterfield, O
Burland, Samuel C., Cambridge, Mass
Burwash, Henry J., Montreal, Q
Butler, B. F., Stirling, O
Butler, George R., Yarmouth, N.S
Cameron, Duncan H., Perth, O
Cameron, John D., Glengarry, O
Campbell, Frederick, London, O
† Campbell, James, London, O
Cannon, Gilbert, Ramsay, O
Carman, John B., Iroquois, O
Carman, Philip E., Iroquois, O
Chisholm. Alex., Lochiel, O
† Clarke, F. G. B., Collingwood, O
Collison, Robert, Matilda, O
† Colquhoun, George, Williamburg, O
† Cook, Guy R., Aultsville, O
† Cooke, William H., Drummondville, Q
Cotton, Cedric L., Cowansville, Q
† Coyle, Henry W., Berthier, Q
† Craig, Thornton, Charlottenburg, O
† Cream, Thomas N., Quebec, Q
† Crothers, William, Clarenceville, Q
Dickinson, Salter M., Cornwall, O
† Eberlé, Harry A., Morpeth, O
Edwards, James S., Strathroy, O
Elliot, William B., Iroquois, O
Farley, James T., St. Thomas, O
Faulkner, Daniel W., Hastings, O
Feader, Henry C., Iroquois, O
Fenwick, Chas. S., Montreal, Q
Fortier, Louis A., River David, Q
Fraser, Alex. C., Wallaceburg, O
Fraser, John R., Hawkesbury, O
Gardner, Henry H., Toronto, O
Gibson, William B., Dunham, Q
Gillis, John A. F. Miscouche, P. E. I
† Gray, John S., Heckston, O
Greaves, Henry C., Barbadoes, W I
Greenwood, Fred. S., St. Catherines, O
† Greer, Thomas A., Colborne, O
Guerin, James J., Montreal, Q
Gurd, David F., Montreal, Q
Hanna, Franklin, Leeds Co. O
Hart, George C., Osnabruck Centre, O
Heard, Charles D. Charlottetown, P.E.I
Henderson, Andrew, Montreal, Q
Henwood, Alfred J., Brantford, O
Harvey, William H., Delhi, O
† Hunt, Henry, Notfield, O
Hutchinson, John A., Bluevale, O
Imrie, Andrew W., Spencerville, O
Irwin, John L., Ottawa, O
Jamieson, Alex., Glengarry, O
Jamieson, Chas. J., Ottawa, O
† Johnson, James B., Toronto, O
Kidd, Thomas A., Carp, O
Kirk, George W., Cornwall, O
Labelle, Martin, St. Dorotheé, Q
Lane, John A., Prescott, O
† Lang, Christopher M., Owen Sound, O
Law, William R., Halifax, N.S
Lawford, John B., Montreal, Q
† Levi Reuben, Montreal, Q
Lloyd, Hoyes W., Strathroy, O
Lynch Peter J., New York, N.Y
Macdonald, Malcolm C.. Glencoe, O
† MacDonnell, Rich.L., B.A., Montreal,
Mattice, James A., Iroquois, O
McCann, John J., Millbory, Mass
McCarroll, John Meaford, O
McCrimmon, John Woodville, O
McCrimmon, Milton Ancaster, O
McCullough, George St. Mary's, O
McCully, Oscar J·, Sussex, N. B.
McDonald, John A., Panmure, P. E. I
McDonald, Robert C., Perth, O
McEvenue, John E., Montreal, Q
McGuigan, William J., Stratford, O
† McIlmoyl, Henry A., Iroquois, O
McKinlay, John K., Perth, O
McLaren, David C., Montreal, Q
McLeod, John Gould, Q
McMillan, Allan Dundee, Q
McNee, Stuart Perth, O
McNeill, Ernest, Moutague Bridge, P.E.I
McPharlin, Edward J., Detroit, Mich
† McRae, George Renfrew, O
McRae, John C., Port Colborne, O
Menzies, John B., Almonte, O
† Metcalfe, Henry J., Riceville, O
Mewburn, Frank H., Drummondville, O
Mills, Francis H., Hamilton, O
Miner, Frank L. M., Abercorn, Q
Mullin, William P., Montreal, Q
† Munro, Alexander Montreal, Q
† Murray, Charles H., B.A., Montreal, Q
Neilson, William J., Perth, O
Oakley, William D., Plattsville, O
Oliver, George H., Dewittville, Q
Page, Thomas A., Brockville, O
Park, George A., St. Marthe, Q
Prendergast, W. J., Cote des Neiges, Q
Poaps, Allen P., Osnabruck, O
† Powell, Robert H. W., Ottawa, O
† Reddy, Herbert L., B.A., Montreal, Q
Riley, Oscar H., Franklin, Vt
† Ritchie, Arthur F., B. A., Montreal, Q
† Robinson, Stephen J., Brantford, O

Robinson, William G.,	Lynn, Mass	Stafford, Frederick J.,	Montreal, Q
Rutherford, Martin C.,	Waddington, N.Y	† Stevenson, Charles N.,	Sarnia, Q
Scott, John G.,	Ottawa, O	Stevenson, Hans	Wakefield, Q
† Secord, Levi	Brantford, O	† Storrs, Arthur	Cornwallis, N. S
Setree, Edward W.,	Prescott, O	† Stroud, Charles S.,	Montreal, Q
Seymour, Maurice M.,	Chesterville, O	Sutherland, William R.,	Montreal, Q
Shaw, William F.,	Ottawa, O	Vineberg Hiram N.,	Montreal, Q
Sibbit, Adam	Kingston, O	Weagant, Clarence A.,	Williamsburg, O
Smellie, Thomas S. J.,	Fergus, O	Webster, Arthur D.,	Kentville, N. S
Smiley, Jonathan	St. Lambert, Q	Weir, Charles	Thorold, O
Smith, Daniel F.	Listowel, O	Williston, Hedley V.,	Newcastle, N. B
Smith, John	Ottawa, O	Wilson, Joseph M.,	Coburg, O
† Smith, William	Lachute, Q	Wright, John W.	Cressy, O
† Snider, Frederick S.,	Simcoe, O	† Young, Philip R.,	Clarenceville, Q

† M. D., C. M., 1876.

FACULTY OF ARTS.

Undergraduates in Arts.

FIRST YEAR.

Allen, Frank A.,	Huntingdon, Q.	McConnell, Richard G.,	Chatham, Q.
Bayne, George D.,	Ottawa, O.	McKibbin, Robert,	Montreal, Q.
Cochrane, William F.,	Montreal, Q.	McLean, Chas., Murray Harbour, P.E.I.	
Cross, Alexander S.,	Ormstown, Q	Meighen, William A.,	Perth, O.
Culp, Byron,	Beamsville, O.	Morrison, Donald,	Nissouri, O.
Eadie, Robert,	Oakland, O.	Redpath, William W.,	Montreal, Q.
Edmunds, Alfred W.,	Montreal, Q.	Robertson, H. McN.,	Barrington, N.S.
Haley, Rupert G.,	Yarmouth, N. S.	Roy, Henry S.,	Montreal, Q.
Houghton, Ernest J.,	Montreal, Q.	Rutledge, William L.,	Toronto, O.
Howard, Robert J. B.,	Montreal, Q.	Shearer, William,	Ottawa, O.
Knowles, Charles,	Tusket, N.S.	Stevens, William H.,	Manilla, O.
Lighthall, Wm. D.,	Montreal, Q.	Wood, Holton H.,	Montreal, Q.
McClure, William.	Lachute, Q.		

SECOND YEAR.

Blakely, Malcolm D.,	Bristol, Q.	McLaren, David C.,	Montreal, Q.
Dawson, Rankine,	Montreal, Q.	Ross, Donald C.,	Uig, P. E. I.
Donald, James T.,	Montreal, Q.	Ross, James,	Dewittville, Q.
Ewing, William.	Melbourne, Q.	Sweeny, James F.,	Montreal, Q.
Guerin, Edmund,	Montreal, Q.	Taylor, Edward T.,	Montreal, Q.
Lyman, A. Clarence,	Montreal, Q.	Thornton, Hastewell W.	Richmond, Q.
McFadyen, Allan L.,	Brock, O.	Torrance, Frederick,	Montreal, Q.
McKillop, Ronald,	Inverness, Q.		

THIRD YEAR.

Amaron, Calvin E.,	Berthier, Q.	McGregor, Archibald F.,	Manilla, O.
Anderson, James A.,	Tiverton, O.	McOuat, John L.,	Lachute, Q.
Atwater, Albert W.,	Montreal, Q.	Newnham, Jarvois A.,	Montreal, Q.
Chubb, Sidney C.,	Brooklyn, N. Y.	Pedley, Charles S.,	Coldsprings, O.
Forneret, George A.,	Montreal, Q.	Robertston, Robert,	Barrington, N. S.
Gould, Charles H.,	Montreal, Q.	Scott, Mathew H.,	Eramosa, O.
Lafleur, Eugene,	Montreal, Q.	Warriner, William H.,	Montreal, Q.
McGibbon, Robert D.,	Montreal, Q.		

FOURTH YEAR.

Cox, Jacob W.,	Cornwallis, N. S.	Malcolm, J. Finlay,	Scotland, O.
Crothers, Robert A.,	Venice, Q.	Matheson, John,	Kenyon, O.
Duffy, Henry T.,	Durham, Q.	McGoun, Archibald,	Montreal, Q.
Graham, John,	Kemptville, O.	Pedley, Hugh,	Coldsprings, O.
Gray, William H.,	Fleurant, Q.	Rexford, Elson Irving,	South Bolton, Q.
Lyman, Henry H.,	Montreal, Q.	Watson, Alindus J.,	Huntingdon, Q.

Department of Practical and Applied Science.

JUNIOR YEAR.

Adams, Frank,	Montreal, Q.	Perry, Arthur P.,	Portland, Me, U.S.
‡ Ferguson, Charles,	Bathurst, N.B.	Power, John P.,	Barrie, O.
Hall, Richard,	Gatineau Mills, Q.	Scriver, John,	Hemmingford, Q.
Hull, Walter C.,	Poughkeepsie, N.Y.	‡Smith, William O.,	Montreal, Q.
‡ Morkill, John T.,	Montreal, Q.	Swan, John,	Montreal, Q.
O'Dwyer, John S.,	Granby, Q.		

MIDDLE YEAR.

Caswell, James A.,	Digby, N.S.	Rogers, Richard B.,	Ashburnham, O.
Clements, Arthur J. T.,	Yarmouth, N.S	Ross, Philip D.,	Montreal, Q.
Howard, William H.,	St. Andrews, Q.	Sproule, William J.,	Schomberg, O.
Jones, Thomas H.,	Bradford, Q.	Thompson, William T.,	Cannington, O.
‡ McNie, John C.,	Perth, O.	Walbank, William McL.,	Montreal, Q.
Nelson, John,	Montreal, Q.	Wardrop, Norval,	Prescott, O.

SENIOR YEAR.

Chipman, Willis,	Harlem, O.	Hawley, David F.,	Aird, Q.
Hethrington, Frederick,	Quebec, Q.		

‡ Partial Students.

Partial and Occasional.

Anderson, Alexander,		Lane, Campbell,	Montreal, Q.
Baillie, J. K.,	Aylmer, Q.	Langford, Charles,	Barrie, O.
Bannerman, D.,		Lawford, John B.,	Montreal, Q.
Barltrop, Alfred J.,	Walkerton, O.	Livingstone, James,	Invernay, O.
Boudreau, M. F.,	Montreal, Q.	Lockhart, Charles,	Ormstown, Q.
Cameron, Charles,	Montreal, Q.	Lynch, Peter J.,	New York, U.S.
Campbell, Lorne,	Montreal, Q.	Meyers, Henry,	Montreal, Q.
Caverhill, ———	Montreal, Q.	McCammon, Chas Legge,	Gananoque, O.
Cossar, A. C.,	Montreal, Q.	McCarrol, John,	Toronto, O.
Cruchet, A. B.,	Joliette, Q.	McCrae, David L.,	Brussels, O.
Cunningham, Wm. B.,	Montreal, Q.	McKillop, ———	Almonte, O.
De Gruchy, Edward,	Compton, Q.	Mousseau, G.,	St. Elizabeth, Q.
De Sallier, ———		Rivard, A. F.,	Montreal, Q.
Edwards, George,	Stratford, O.	Roberts, George F.,	Montreal, Q.
Evans, Edward A. A.,	Montreal, Q.	Silcox, J. B.,	St. Thomas, O.
Foord, Arthur H.,	Montreal, Q.	Stevenson, Rev. J. F., (LL.B.),	Montreal, Q.
Furneaux, Hugh J.,		Ward, G. B., (B.A),	Boundary Line, Q.
Hobbs, Richard,	St. Thomas, O.	Watt, Allan,	Montreal, Q.
Holiday, Thomas,	Montreal, Q.	Whit side, A.,	St. John, N.B.
Hughes, Silas,	Wellington, O.	Willett, George,	Toronto, O.
Hyde, ———		Wolcott, Joseph N.,	Keeseville, N.Y.
Imrie, Andrew W.,	Spencerville, O.	Wright, James C.,	Clifford, O.
Ker, Joshua,	Montreal, Q.	York, Alexander,	Metcalf, O.
Kettlewell, William,	London, O.		

MORRIN COLLEGE.

FACULTY OF ARTS.

Undergraduates.

Bland, Salem,	Lachute, Q.	McDonald, Simon,	Quebec.
Feales, Ebenezer,	Quebec.	Muir, Andrew C.,	Quebec.
Ferguson, James,	Quebec.	Paterson, James T.,	Windsor.
Irvine, George H.,	Quebec.	Walker, John,	Quebec.

Besides 14 Occasional Students.

SUMMARY.

Students in Law, McGill College,		79
" in Medicine "		148
" in Arts "	Undergraduates,	88
	Partial and Occasional,	51
" " Morrin College,	Undergraduates,	8
	Occasional,	14
Total number of Students,		388
Deduct entered in two Faculties,		5
		383
Teachers in training in Normal School,		119
Pupils in Model Schools,		340
Total Students and Pupils,		842

Passed the University Examinations.

SESSION 1875-6.

FACULTY OF LAW.

PASSED FOR THE DEGREE OF B. C. L.*

Bissaillon, Francois Joseph.
Desaulniers, Dionis.
Desmarais, Odilon.
Doherty, Charles J.
Gelinas, A.
Glass, James M.
Greenshields, James N.
Lebourveau, Steadman A.
McDonald, John S.
Perodeault, Narcisse.
Scallon, William.
Tache, Paschal.

FACULTY OF MEDICINE.

PASSED FOR DEGREE OF M. D., C. M.*

Baynes, Donald, M. A., L.R.C. P., Edin.
Campbell, James.
Clarke, Fincastle, G. B.
Colquhoun, George.
Cook, R. Guy, B. A.
Cooke, William Henry.
Coyle, H. W.
Craig, Thornton.
Cream, Thomas N.
Crothers, Wm.
Eberlé, Harry A.
Gray, John S.
Greer, Thomas A.
Hunt, Henry.
Johnson, Jas. B.
Lang, Christopher McL.
Levi, Reuben.
McIlmoyl, Henry A.
MacDonnell Richard L., B. A.
McRae, George.
Metcalfe, Henry J.
Munro, Alexander.
Murray, Chas. H., B. A.
Powell, Robert W.
Reddy, Herbert L., B. A.
Ritchie, Arthur F., B. A.
Robinson, Steven J.
Secord, Levi.
Smith, William.
Snider, Fred. S.
Stevenson, Charles N.
Storrs, Arthur.
Stroud, Charles S.
Young, Philip R.

PASSED THE PRIMARY EXAMINATION. *

Armstrong, George E.
Bell, James.
Boyle, Albert.
Brodie, John.
Burland, Samuel C.
Cannon, Gilbert.
Cameron, Duncan H.
Collison, Robert.
Cotton, Cedric L.
Faulkner, Daniel W.
Fortier, Alexandre.
Fraser, Alexander C.
Gillis, John A. F.
Greaves, Henry C.
Jamieson, Alexander, B. A.
Lane, John A.
Law, William K.
Miner, Frank L.
Oakley, William D.
Park George A.
Smellie, Thomas S. D., M. A.

*Arranged Alphabetically.

FACULTY OF ARTS.

PASSED FOR THE DEGREE OF B. A.

In Honours.

(Alphabetically Arranged.)

CROTHERS, ROBERT ALEXANDER.
DUFFY, HENRY THOMAS.
GRAHAM, JOHN.
LYMAN, HENRY HERBERT.
MCGOUN, ARCHIBALD.
REXFORD, ELSON IRVING.

Ordinary.

Class I.—PEDLEY, HUGH.
WATSON, ALINDUS J.

Class II.—None.

Class III.—COX, JACOB WHITMAN,
MATHESON, JOHN.
GRAY, WM.

PASSED IN THE INTERMEDIATE EXAMINATION.

Class I.—ROSS (JAMES), ROSS (DONALD C.), DONALD.

Class II.—DAWSON, BLAKELY, THORNTON, GUERIN.

Class III.—TORRANCE, LYMAN (ALBERT CLARENCE), MCLAREN, SWEENY.

PASSED FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

Course of Civil and Mechanical Engineering.

(In order of relative standing.)

CHIPMAN, WILLIS.
HAWLEY, DAVID F.
HETHERINGTON, FREDERICK.

Graduates of the University.

DOCTORS OF DIVINITY.

* Bethune, Rev. John, (ad eundem) 1843. * Falloon, Rev. Daniel, [Hon.].1844.

DOCTORS OF LAWS AND OF CIVIL LAW.

* Abbott, Christopher, B. C. L. [D. C. L., in course].....1862
Abbott, Hon. J. J. C., B. C. L., [D. C. L. in course].....1867
Adamson, Rev. Wm. A., [D.C.L. hon].....1850
Badgley, Hon. Wm. A., [D. C. L. hon].....1843
Bancroft, Rev. C., D.D. [LL.D. hon].....1870
Bond, Rev. Wm. M.A., [LL.D. hon]1870
Browne, Dunbar, M.A., B. C. L. [D. C. L. in course].....1871
Campbell, George, W., M.A., M.D., [LL.D. hon].....1875
Chamberlin, B., M.A., B. C. L. [D. C. L. in course].....1867
Chauveau, Hon. Pierre, J. O., [L.L.D hon].....1857
Cordner, Rev. John, [LL.D. hon]..1870
Cornish, Rev. George, M.A., [LL.D. in course].....1872
Davidson, Charles Peers, M.A., B. C. L. [D. C. L. in course].....1875
Davies, Rev. Benjamin, Ph. D. [LL.D. hon].....1856
Dawson, John William, M.A., [LL.D. hon].....1857
DeSola, Rev. A., [LL.D. hon].....1858
Douglas, Rev. Geo., [LL.D. hon]..1870
Doutre, Gonsalve, B.C.L. [D.C.L. in course].....1873
* Falloon, Rev. D., D.D., [LL.D. hon.].....1862
Girouard, Desiré, B.C.L., [D.C.L. in course].....1874
* Head, Right Hon. Sir Edmund W., Baronet, M.A., [LL.D. hon].1863
Hemming, Edward J., B.C.L., [D.C.L. in course].....1871
* Holmes, Andrew F., M.D., [LL.D. hon].....1858
Howe, Henry A., M.A., [LL.D. hon].....1870
Hunt, T., Sterry, M.A., [LL.D. hon].....1865
Kerr, William H., [D. C. L. in course].....1873
Kirby, James M.A., B. C.L. D.C.L. in course].....1874
[LL.D. in course].....1874
Laflamme, R. G., B.C.L. [D.C.L. in course].....1873
Lawson, G., Ph. D., [LL.D. hon]...1862
* Lafrenays, P. R., B.C.L., [D.C.L. in course].....1873
Leach, Rev. Wm. T., M.A., D. C. L. hon].....1849
[LL.D. hon].....1857
Logan, Sir William, E., Kt., [LL.D. hon].....1856
* Lundy, Rev. Francis, [D.C.L. hon].....1843
Lyall, Rev. W., [LL.D. hon]..... 1864
MacVicar, Rev. D. H., [LL.D. hon]1870
Meredith, Edmund A., B. C. L., [LL.D. hon].....1857
Miles, Hy. H., M.A., [LL.D. hon]..1866
Morris, Alexander, M.A., B.C.L. [D.C.L. in course].....1862
Rollitt, Albert K., LL.D. London Univ. [LL.D. ad eun].....1871
* Smallwood, Charles, M.D., [LL.D. hon].....1856
* Smith, William, [LL.D. hon].....1858
* Valieres, de St. Real, Hon. J. R., [D. C. L. hon].....1844
Wickes, Rev. W. D., [LL.D. hon]..1868
Wilkes, Rev. Henry, D.D., M.A., [LL.D. hon].....1870

* Deceased.

DOCTORS OF MEDICINE.

Adsetts, John.....1866
Alexander, Robt. A.....1871
Alguire, Duncan O.....1874
† Allen, Hamilton.....1872
Alloway, Thomas Johnson.....1869
Anderson, Alexander.....1866
* Anderson, John C.....1865
Archer, Thomas.....1869
Ardagh, Jonson.....1869
* Arnoldi, Daniel.....[Hon].....1847
Atkinson, Robt.....1862
Ault, Alexander.....1860
Ault, Charles.....1855
Ault, James F.....1854
Ault, Edwin D.....1868
Austin, Fred. John.....1862
Aylen, John.....1857
Aylen, James.....1863
Backhouse, John B.....1870
Bain, D. S. E., Staff Surgeon Maj.1868
Bain, Hugh U.....1875
Baird, James.....1870
Baker, Albert.....1848
Barclay, George.....1870
* Barnston, James.....[ad eun]....1856
Battersby, Charles.....1861
Baynes, George Aylmer.....1869
Beattie, David.....1862
Beaudet, Alfred.....1865
Beaudry, Lewis H.....1871
Bell, John. M, A.....1866
Bell, Robt. W.....1873
Bellew, Alfred.....1852
Bergeron, Joseph.....1870
Bergin, Darby.....1847
Bessey, William E.....1863
Bender, Prosper.....1865
Benson, Joseph B.....1875
Bibeau, Jean G. J.....1843
Blackader, Alex D., B. A.....1871
Blacklock, John J.....1851
* Blanchet, J. B.....1863
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* Jones, Jonathan C..... 1865
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* Staunton, Andrew Aylmer, Surgeon Royal Artillery.....1845
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* Deceased. † Holmes Medallist.

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* Leach, Robert A., B.A., B.C.L...1860
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Mason, James L., B.A.....1863
Mattice, Corydon J., B.A.....1862
Morris, Alex., B.A., B.C.L..... 1852
Morrison, Rev. James D., B.A.....1862
Morrison John, B.A.....1870
Munroe, Gustavus, B.A.....1874
Perkins, John A., B.A.....1862
Perrigo, James, B.A.....1869
* Plimsoll, Reginald J., B.A.....1862
Ramsay, Robt. A., B.A., B.C.L.....1867
Robins, Sampson Paul, B.A.....1868
* Rodger, David.....(Hon).....1857
Ross, George, B.A., M.D.....1866
* Stewart,Rev.Colin Campbell,B.A.1870
Tabb, Silas Everett, B.A.....1869
Thorburn, John.....(Hon).....1861
Trenholme, Norman W., B.A.,B.C.L1867
Torrance, Edward F., B.A.....1874
Wallace, Rev. R. W., B.A.....1875
Wicksteed, Richd. G., B.A., B.C.L.1866
Wilkie, Daniel.....(Hon).....1866
Wilson, John, B.A 1870
Wortherspoon, Ivan Tolkien, B.A..1869

* Deceased.

BACHELORS OF CIVIL LAW.

* Abbott, Christopher C.....1850
Abbott, John J. C.....1854
Abbott, John, B.....1874
Adams, Abel.....1867
Allan, Irvine.....1862
‡ Archibald, John Sprott, B.A.....1870
Archambault, Henri.....1874
Archambault, Joseph L. C.....1871
Armstrong, Louis.....1861
Ascher, Isidore G.....1863
Aylen, John M.D.....1861
Aylen, Peter B.A.....1854
* Badgley, Frank H.....1852
Bagg, Robert Stanley.....1871
Barnston, John G.....1856
Barry, Denis.....1872
Baynes, Edward Alfred.....1867
Baynes, O'Hara.....1874
Benjamin, Lewis N.....1865
‡ Bethune, Meredith, B., M.A.....1869
Branchaud, Athanase.....1862
* ‡ Bothwell, John A., B.A.....1866
Bouthillier, Charles F.....1867
Boyd, John, B.A.....1864
Bowie, Duncan E.....1873
Browne, Dunbar, M.A.....1858
Bullock, Wm. E., B.A.....1863
Butler, Thomas L.....1865
Calder, John.....1871
Carden, Henry.....1860
Caron, Adolph P.....1865
Carter, Christopher B 1866
Carter, Edward.....1864
Chamberlin, Brown.....1850

Chamberlin, John, Junr.....1867
Chambers, A. Busteed.....1875
Charland, Alfred.....1863
Chauveau, Alexandre.....1867
Chauret, Amedee.....1873
Choquette, Francis X.....1874
Cocquet, Ambroise.....1865
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Coutlee, Lewis W. P.....1873
Cenroy, Robert Hughes.....1869
Cowan, Robert C.....1862
Cruikshank, William.....1872
Curran, Joseph C.....1862
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Cushing, Lemuel, Junr., M.A.....1865
Daly, J. G.....1858
Dansereau, Arthur.....1865
Darby, Daniel.....1870
Darey, Pierre J., M.A.....1868
David, Alphonse.....1872
Davidson, Charles P., M.A.....1863
Davidson, Leonidas Heber, M.A.....1863
Day, Edmund T.....1864
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Geoffrion, Christopher A.....1866
Gibb, James R.....1868
Gilman, Francis E., M.A.....1865
Girouard, Désiré.....1860
‡ Gordon, Asa.....1867
Grenier, Amedé L. W.....1863
Hackett, Michael F.....1874
Hall, John S., B.A.....1875
Hall, William A.....1863
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Hart, Lewis A., M.A.....1869
Hemming, Edward J.....1855
‡ Hodge, David W. R., B.A.....1874
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‡ Hutchinson, Matthew.....1873
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Lacoste, Arthur.....1869
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Lambe, William B.....1850
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Lariviere, Joseph.....1874
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Lawlor, Richard S.....1865
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* Leach, Robert A., M. A.....1860
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Lyman, Elisha Stiles.....1865
Lyman, Frederick S., B.A.....1869
‡ Lynch, Wm. W.....1868
MacKenzie, Frederick.....1861
‡ Major, David.....1875
Major, Edward James.....1871
‡ Marler, William DeM., B.A.....1872
McCord, David Ross, M.A.....1867
McCormack, David.....1872
McDonald, Frank H.....1873
* McGee, Thomas D'Arcy.....1861
McIntosh, John, B.A.....1868
McLaren, John J.....1868
McLaren, John Robert, M.A.....1860
McLaurin, John Rice.....1867
‡ McMaster, Donald.....1871
Merry, John Wesley.....1870
Messier, Damase.....1875
Messier, Joseph S.....1868
Mitchell, Albert Edward.....1867
Molson, Alexander.....1851
Monk, Ed. Cornwallis.....1870
Morris, Alexander, M.A.....1850
Morris, John L.....1860
Nagle, Sarsfield B.....1862
Nichols, Thomas, M.D., LL.B.....1875
Nutting, Charles A.....1872
Ouimet, Adolphe P.....1861

Panet, Edouard A.....1874
Papineau, Joseph G.....1869
Piché Aristide.....1868
Perry, Joseph.....1869
Pariseault, Chas. Ambroise.....1859
Perkins, John A., M.A.....1860
* Plimsoll, Reginald J., M.A.....1861
Poutre, Felix E.....1874
Power, Alexander W. A.....1868
Prefontaine, Raymond.....1873
Rainville, Henri Benjamin.....1873
Ramsay, Robert A., M.A.....1866
Richard, Damase F. S.....1859
Richard, Emery Edward.....1867
Richard, Edward E.....1868
Rixford, Emmet Hawkins.....1865
Robillard, Emilie.....1874
Robideaux, Emery.....1866
Rochon, Charles A.....1861
Rose, William.....1866
Sabourin, Ernest.....1863
Santoire, Camille.....1873
Sarrasin, Ferdinand Leon.....1871
Sexton, James Ponsonby.....1860
Short, Robert.....1867
Sicotte, Victor B.....1862
Snowdon, H. L.....1856
Spong, John J. R.....1874
Stephens, Charles Henry.....1875
Stephens, George W.....1865
Stephens, Romeo H.....1850
Stephens, Chas. O.....1864
Tait, Melbourne.....1862
Taschereau, Arthur.....1864
Taylor, Reid.....1869
Terrill, Joseph Lee.....1865
Torrance, Fred. W., M.A.....1856
Trenholme, Edward H., M.D.....1865
‡ Trenholme, Norman W., M.A.....1865
Vandall, Phillipe.....1865
Vilbon, Chas. A.....1863
Walker William G.....1874
Walsh, Thomas Joseph.....1863
Watts, William J., B.A.....1869
Welch, Alfred.....1864
Wicksteed, Richard G., M.A.....1864
Wight, James H.....1868
Wood, Franc Ogilvie.....1870
Wotherspoon, Ivan T. (Laval). [ad eun].....1869
Wright, William Mackay, B.A.....1863
Wurtele, Charles J. C.....1863
Wurtele, Jonathan S, C.....1870

* Deceased. ‡ Elizabeth Torrance Medallist.

BACHELORS OF ARTS.

Allan, James G [**S e l**].....1873
Allan, John [**n l**].....1874
Allworth, John.....1872
Anderson, Jacob de Wit, [**C e l**].....1866
Archibald, John Sprott, (**W p l**).....1867
Aylen, Peter.....1850
Bancroft, Rev. Chas., Junior.....1866
Barnston, Alexander (**C**).....1857
Baynes, Donald.....1864
Beckett, William Henry.....1866
Bethune, Meredith Blenkarne (**L n l**).....1866
Black, James R.....1874
Blackader, Alex. D., (**n l**).....1870
Bockus, Charles E.....1852
* Bothwell, John A., (**L n l**).....1864
Boyd, John, (**n**).....1861
Brewster, William, (**C e l**).....1865
Brooks, Charles H., (**L n l**).....1868
Browne, Arthur Adderly, (**S e l**).....1866
Browne, Dunbar.....1856
Browne, Thomas.....1853
Bullock, William E., (**C e l**).....1860
Cameron, James, (**M m l**).....1871
Carmichael, James.....1867
Cassels, Hamilton, (Morrin).....1873
Cassels, Robert, (Morrin) (**p l**).....1866
Chandler, George H., (**M m l**).....1875
Chipman, Clarence.....1866
Christie, John H.....1872
Clarke, Wallace, (**S e l**).....1869
Cline, John D., (**C e l**).....1871
Cook, Archibald H., (Morrin).....1869
Clowe, John D.....1863
Cornish, Rev. Geo., B.A., *London Univ.* (ad eun).....1856
Craig James.....1874
Crothers, W. J., (**p**).....1872
Coussirat, Rev. Adrian D., (ad eun).....1871
Cushing, Lemuel, (**e l**).....1863
Dart, William J.....1868
Davidson, Charles Peers.....1863
Davidson, Rev. Jas. (ad eun).....1863
Davidson, Leonidas Heber.....1863
Dawson, William B., (**L n l**).....1874
Dewey, Finlay McN. (**m**).....1874
Dey, William J., (**L n l**).....1871
DeWit, Caleb S.....1861
Dougall, Duncan.....1860
Dougall, John Redpath.....1860
Drummond, Chas. G. B. (**n l**).....1862
Duff, Archibald (**M m l**).....1864
Duncan, Alexander.....1867
Ells, Robert, (**L n l**).....1872
Empson, John.....1874
Fairbairn, Thomas (**p**).....1863
Ferguson, John S.....1851
* Ferrier, Robert W.....1857
Fessenden, Elisha Joseph.....1865
Fleet Charles J., (**e l**).....1873
Fortin, Rev. Octave (ad eun).....1867
Fowler, William (**n l**).....1865
Fowler, Elbert.....1868
Fraser, John (Morrin).....1869

Gibb, Charles.....1865
Gilman, Francis Edward.....1862
Gore, Frederick.....1861
Gould, Edwin.....1856
Grandy, John.....1866
Greenshields, Edward (W P I).....1869
Greenshields, Samuel.....1874
Green, Joseph (C e I).....1861
Green, Lonsdale.....1864
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Hall, William.....1861
Hart, Lewis A.....1866
Harrington, Bernard J., (L n I)..1869
Harvey, Alfred.....1874
Harvey, Charles J.....1874
Hicks, Francis W.....1864
Hindley, John.....1868
Hodge, D. W. K., (S e I).....1872
Holiday, Caleb S.....1870
Jones, Montgomery, (e I).....1869
Johnston, James A., (W p I).....1870
Joseph Montefiore (n I).....1870
Kahler, Frederick A., (C e I).....1869
Kelley, Frederick W., (S e I).....1871
Kemp, Edson.....1859
Kennedy, George T., (n I).....1868
*Kershaw, Philip G.....1867
Kirby, James (C).....1859
Krans, Edward H., (S e I.....1865
Laing, Robert (W p I).....1868
* Leach, Robert A.....1857
Lewis, Albert R, (e I).....1869
Lyman, Frederick Stiles.....1863
Major, George W.....1870
Marler, Wm., De M. (M m I).....1868
Mason, James L.....1859
Mattice, Corydon J.....1859
Maxwell, John, (n I).....1872
McCord, David Ross.....1863
MacDonnell, Richard L. (C e I)...1873
MacDuff Alexander Ramsay.....1866
McFee, Kutusoff N., (W p I).....1874
McGregor, James, (e I).....1864
McGregor, Duncan.....1871
McIntosh, John (S e I).....1870
McKenzie, John (Morrin).....1867
McKenzie, Robt., (P I).....1869
McKibbin, William M.....1875
McLaren, John R.....1856
McLaren, Harry, (C).....1858
McLean, Neil W., (Morrin).....1866
McLennan, Duncan H.....1871
McLennan, John S., (m I).....1874
McLeod, Duncan C., (M m I).....1873
McLeod Hugh.....1866
McLeod, Finley C.....1872
* McOuat, Walter (n I).....1865
Merritt, David Prescott.....1863
Moore, Francis X.....1868
Morrrice, William.....1859
Morrice, Alexander.....1849
Morrison, John.....1866
Morrison, James D., (L n I).....1865
Morrison, David E., (e I).....1870
Muir, John N.....1864
* Muir, Rev. E, P., (ad eun).....1865
Munro, Gustavus.....1871
Munro, Murdoch.....1872
Murray, Charles H., (L n I).....1873
Naylor, W. H, (W p I).....1872
Oliver, Theophilus H,(Morrin) (p)1866
Pease, George H., (W e I).....1864
Perrigo, James (n I).....1866
Perkins, John A.....1858
Petit, Rev. Charles B.....1850
Phillips,Charles W.....1852
* Plimsoll, Reignald J.....1858
Ramsay, R. Anstruther (W n I)...1862
Redpath, George D.....1857
Reddy, Herbert L., (e I).....1873
Ritchie, Arthur F. (e I).....1873
Ritchie, William F. (C e I).....1875
Robertson, Alex. (L n I).....1870
Robins, Sampson Paul (W m I)...1863
Ross, George (C e I).....1862
Russell, Henry (Morrin).....1869
Scott, Henry C. (Morrin) (p I).....1866
Sherrill, Alvan F. (C n I).....1864
Slack, George.....1868
Stethem, George T.....1852
Stevenson, Samuel C.....1874
* Stewart, Collin Campbell (L n I)1867
Stuart, Gustavus S. (W p I).....1875
Tabb, Silas Everett (n I).....1866
Taylor, Archibald D. (e I).....1874
Taylor, Earnest M.....1875
Thomas, Henry W. (S e I).....1874
Thornton, Rev. R., M.A.(ad eun).1871
Torrance, Edward F., (P).....1871
Torrance, John Fraser.....1872
Trenholme, Norman Wm (C p I)..1863
Tunstall, Simon J., (e I).....1873
Tupper, James S., (n I).....1871
Walker, Thomas.....1860
Wallace, Robt. W., (P I).....1872
Ward, George B., (C e I).....1874
Watts, Wm. John (e I).....1866
Whillans, Robert.....1872
Wicksteed, Richard G., (e I).....1863
Wilson, John (e I).....1866
Wood, Franc O.....1869
Wood, Thomas F.....1869
Wortherspoon, Ivan T., (Morrin) (p I).....1866
Wright, William McKay.....1861

BACHELORS OF APPLIED SCIENCE.

In Civil and Mechanical Engineering.

Boswell, St. George J.....1874
Brodie, Robert J.....1873
Batcheller, Alvan A.....1875
Dawson, William B., B.A.....1875
Frothingham, John J.....1875
Harvey, Charles J.....1874
Hill, Arthur E.....1875
Kennedy, George T., M.A.....1873
McLean, Alexander J.....1874
McLeod, Clement H.....1873
Page, John.....1875
Robertson George S.....1874
Ross George.....1875
Stewart, Donald A.....1873
Wicksteed, Henry K.....1873
Wilson, Robert A.....1875

In Mining and Assaying.

Spencer, Joseph Wm. [**n l**].....1874
Torrance, John Fraser [**n l**].....1873
Wicksteed, Henry K.....1874
Wilkins, Dan. F.H., B.A. (Tor) [**nl**] 1875

GRADUATES IN CIVIL ENGINEERING.

Barnston, Alexander B.A.....1859
Bell, Robert, [**n l**].....1861
Crawford, Robert.....1859
Doupe, Joseph.....1861
Edwards, George.....1863
Frost, George H.....1860
Gaviller, Maurice.....1863
Gooding, Oliver.....1858
Gould, James H.....1862
Kirby, Charles A.....1860
McLennan, Christopher.....1859
Reid, John Lestock.....1863
Rixford, Julian Pickering.....1864
Ross, Arthur.....1860
Savage, Joseph.....1860
Walker, Thomas, B.A.....1860

[**C**] Chapman Medallist.
[**W**] Prince of Wales Medallist.
[**M**] Ann Molson Medallist.
[**S**] Shakspere Medallist.
[**L**] Logan Medallist.
[**pl**] First Rank Honours in Mental and Moral Philosophy [**p**] Second Rank.
[**ml**] " " " in Mathematics; [**m**] Second Rank.
[**cl**] " " " in Classics; (**c**) Second Rank.
(**nl**) " " " in Natural Science; (**n**) Second Rank.
(**el**) " " " in English Literature; (**e**) Second Rank.

* Deceased.

For Graduates of 1876, see lists on pages 95 and 96.

LIST OF THE PRINCIPAL DONATIONS,

TO THE

LIBRARY AND COLLECTIONS OF THE FACULTY OF ARTS.

FROM MAY, 1875, TO APRIL, 1876, INCLUSIVE.

I.—TO THE LIBRARY.

Cobden Club, London, England.....Bastiat's Essays on Political Economy. 12mo.
do do .....Report of Proceedings at the Dinner of the Cobden Club, July 11, 1874. pam. 12mo. (2 Copies.)
Principal Dawson, LL.D., F.R.S.....Howe's (Hon. J.) Speeches and Public Letters 2 vols. 8vo.
do do .....Christian Psychology. 8vo.
do do .....The Dawn of Life. 8vo.
do do .....Revision of the Echini. By A. Agassiz. 2 vols. 4to.
Major G. K. Warren, U. S. A.....An Essay concerning Important Physical Features exhibited in the Valley of the Minnesota River. pam. 8vo.
Harvard College, Cambridge, Mass.....Annual Report of the Trustees of the Museum of Comparative Zoology, for 1874 and 1875. 2 pam. 8vo.
Government of the Dominion of Canada.....Wicksteed's Canadian Militia, 1875. 8vo.
do do .....Sessional Papers, Nos. 1-8 to vol. viii. 8 vols. 8vo.
do do .....Journals of the House of Commons, 1875. vol. ix. 8vo.
do do .....Statutes of Canada, 1875. English and French. vols. I and II (4 Copies.) 8vo.
Superintendent of the U. S. Coast Survey.....Report of the U. S. Coast Survey for 1871 and 1872. 2 vols. 4to.
Government of the State of New Hampshire, U. S.....Geology of New Hampshire. vol. 1st. 4to.
A. Dewar, Esq.....Origin of Creation. 8vo.
Right Hon. The Earl of Cavan.....When were our Gospels Written? An Argument by C. Tischendorff. pam. 8vo.
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F. P. Labilliere, Esq.....Permanent Unity of the Empire. pam. 8vo.
Government of the Dominion of Canada.....Census of Canada for 1870-71. vol. 3rd. 8vo. (2 Copies.)
Government of the Province of Quebec.....Statutes of the Province of Quebec, Session 1874-75. English and French. 2 vols. roy. 8vo.
do do .....Journals of the Legislative Assembly of the Province of Quebec, Session 1874-75. 8vo.
do do .....Report of the Minister of Public Instruction for the Province of Quebec, for 1872-73, and for part of 1874. 8vo. pap.
do do .....Financial Statement of the Minister of Public Instruction for the Fiscal years ended 30th June, 1874 and 1875. 2 pam. 8vo.
do do .....Statement of the Public Accounts of the Province of Quebec for the Fiscal year ended 30th June, 1874. roy. 8vo.

E. M. Taylor, B.A. ..... McGill University Gazette, 1873-74. sm. fol.

Geological Survey of Pennsylvania ..... Reports "B" & "I" of the Second Geological Survey of Pennsylvania, 1874, 2 vols. roy. 8vo. pap.

do do ..... Report of Progress for 1874-75. 3 pam. 8vo.

Dr. F. V. Hayden ..... Annual Report of the U. S. Geological and Geographical Survey, 1874. 8vo.

do do ..... Synopsis of the Acrididæ of North America. 4to. pap.

do do ..... Contributions to the Extinct Vertebrate Fauna of the Western Territories. 4to. pap.

Prof. W. J. Beale ..... Third Annual Report of the Secretary of the State Pomological Society of Michigan, 1873. 8vo.

G. M. Dawson, Esq., F.G.S. ..... Seventh Annual Report on the Noxious, Beneficial, and other Insects of the State of Missouri. pam. 8vo.

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G. T. Kingston, Esq., M.A. ..... Reports on the Meteorological, Magnetic, and other Observations of the Dominion of Canada, for 1874. pam. 8vo.

do do ..... Abstracts and Results of Magnetical and Meteorological Observations, Toronto, from 1841 to 1871. 8vo.

Institution of Civil Engineers, London, Eng. ..... Minutes of Proceedings of the Institution of C. E. vols. No. 40-42. 8vo.

Messrs. Wood & Holbrook, New York ..... The Herald of Health, for the year 1874. 2 vols. No. in one. 8vo.

University of Toronto ..... Calendar of University College, Toronto, for 1875-76. pam. 8vo.

do do ..... Examination Papers for 1875. 8vo. half bd.

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J. Fraser Torrance, Esq., B.A. ..... Lochneyss' Bericht von Bergwerken. fol. Löh

do do ..... Subterranea. fol.

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do do ..... Jars' Metallurgische Reisen. 4 vols. 8vo.

do do ..... Hartmann's Fortschritte zur Eisenhüttenkunde. 8vo.

do do ..... Kupfertafeln zu Hartmann's Fortschritten der Eisenhüttenkunde. fol.

do do ..... Schneideri Analecta ad Historiam Rei Metallicae Veterum. sm. 4to.

W. C. Harris, Esq. ..... Sketch of the Geology of Moray. 8vo.

W. G. Beers, Esq. ..... Examination Papers of the Royal College of Surgeons of England. 19 pam. 8vo.

Government of Washington ..... Monthly Weather Review, March to July, 1875. 4 pam. 8vo.

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State Board of Charities of the State of N. Y. ..... Eighth Annual Report of the State Board of Charities, State of N. Y., January, 1875. 8vo.

S. S. Laws, Esq., M.D. ..... A Thesis on the Dual Constitution of Man, or, Neuro-Psychology. pam. 8vo.

Dr. S. W. Williams ..... King Pao, or Peking Gazette, September 18th, 1875. (One Copy.)

Boston Society of Natural History ..... Proceedings. Vol. 17th. 8vo.

do do ..... Occasional Papers. No. 2. 8vo. pap.

Smithsonian Institution ..... Annual Reports of the Regents for 1874. 8vo.

University of Aberdeen, Scotland ..... Catalogue of the Library of the University of Aberdeen. 3 vols. roy. 8vo.

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Royal Society of London .....Philosophical Transactions. vol. 164 (Parts 1 and 2) and vol. 165 (Part 1st.) 3 vols. 4to. pap.
do do .....Proceedings. vol. 22nd (Nos. 151-155.)—vol. 23rd (Nos. 156-163.) 13 pam. 8vo.
do do .....List of Fellows of the Royal Society, 30th Nov. 1874. pam. 4to.
do do .....Klein's Anatomy of the Lymphatic System. vol II.—8vo.
American Philosophical Society of Philadelphia...Proceedings. No. 95 to vol. XIV. pam. 8vo.
Dr. F. V. Hayden.....Report of the U. S. Geological Survey of the Territories. vol. II. 4to.
Mrs. G. H. Frothingham .....Picturesque America, or, The Land we Live in. 48 parts. 4to.
J. Perrigo, Esq., M.D.....Mulcahy's Principles of Modern Geometry. 8vo.

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From A. R. C. Selwyn, Esq., F.R,S.....Specimen of *Verellia Blakei*, from British Columbia—Garnets from Stickeen River, B. C., and Indian Vase from B. C.
G. M, Dawson, Esq., F.G.S .....Specimens of Cretaceous and Tertiary Fossils.
Mrs. Molson, Belmont Hall.....Specimen of *Euplectella*.
Dr. Harrington, Montreal.....Specimens of Fossil Plants from Illinois.
Dr. Workman, Toronto.....Specimens of Fossils from Guelph Limestone, Ontario.
Right Hon. the Earl of Cavan.....Specimens of *Marsupites* from the Chalk of England.
A. E. Hill, Esq., C. E. Sydney, Cape...Specimens of Rocks and Fossils from Cape Breton.....Breton.
Rev. Mr. Fenwick, Metis.....Impression Public Seal of Canada.
W. White Walpole, Esq., London, Eng....Specimens of Echinoderms; through Dr. Carpenter.
D. F. H. Wilkins, Esq., B. A.....Plants from Labrador; Fossils, Galt, Ontario; and Rocks from Labrador.
T. Curry, Esq., Montreal.....Coral and Nullipores, Bermuda.
Mr. Scatchard, Montreal.....Ancient French Copper Coin.
J. W. Spencer, Esq., Bac. App. Sci.....Rocks and Minerals from Lake Superior and *Dictyonema*, Hamilton Ontario.
W. C. Harris, Esq.....*Orthoceras* and *Calymene*.
William McCulloch, Esq., Montreal .....Collection of Shells and Crustaceans from the South Pacific.
W. J. Morris, Esq., Perth, Ont... .....Specimens of Eozoon from Burgess, Ontario.
W. Robb, Esq., Montreal.....Dendritic Crystallization from Berthier en Haut.
J. F. Pennock, Esq., Ottawa.....Specimens of Plumbago, Buckingham, P. Q.
Dr. Grant, F.G.S., Ottawa.....Specimen of Apatite and Ear Bone of a Whale.
Rev. Prof. Duff, Montreal.....Fossils from the Muschelkalk of Germany.

McGill Normal School.

1876-77.

GOVERNMENT OF THE SCHOOL.

Under the Regulations for the establishment of Normal Schools in the Province of Quebec, the Superintendent of Education is empowered to associate with himself, for the direction of one of these Schools, the Corporation of McGill University, Montreal. In accordance with this arrangement, the Provincial Protestant Normal School is affiliated with the McGill University, and the following members of the Corporation of the University constitute the Committee of the Normal School for the Session of 1876-77.

NORMAL SCHOOL COMMITTEE.

J. W. DAWSON, LLD., F. R. S., Vice-Chancellor of the University, *Chairman.*

HON. JAMES FERRIER, Senator.
PETER REDPATH, Esq., } Governors of McGill College.

REV. GEORGE CORNISH, LL.D.
ROBERT A. RAMSAY, M,A., B. C. L. } Fellows of McGill University.

WILLIAM CRAIG BAYNES, B. A., *Secretary.*

OFFICERS OF INSTRUCTION.

WILLIAM HENRY HICKS, Esq.—*Principal and Ordinary Professor of English Language and Literature.*

JAMES MCGREGOR, M.A.—*Ordinary Professor of Mathematics, and Instructor in Classics.*

SAMPSON PAUL ROBINS, M. A.—*Associate Professor of Natural History.* (*)

PIERRE J. DAREY, M.A., B. C. L.—*Associate Professor of French.*

MR. JAMES DUNCAN.—*Instructor in Drawing.*

MR. R. J. FOWLER.— " *in Music.*

MR. JOHN ANDREW.— " *in Elocution.*

J. BAKER EDWARDS, Ph.D.—*Lecturer on Chemistry and Natural Philosophy.* †

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* Prof. Robins will also in the next Session deliver lectures on the Art of Teaching to the Elementary Class.

† Dr. Edwards will also lecture on Agricultural Chemistry.

Announcement for Next Session.

This institution is intended to give a thorough training to teachers, especially for the Protestant population of the Province of Quebec. This end is attained by instruction and training in the Normal School itself, and by practice in the Model Schools; and the arrangements are of such a character as to afford the greatest possible facilities to Students from all parts of the Province.

The Twentieth Session of the School will commence on the first of September, 1876, and will terminate on the first of July 1877.

The complete course of Study, extends over three years, and the Students are graded as follows:—

1. *Elementary School Class.*—Studying for the Elementary School Diploma.

2. *Model School Class.*—Studying for the Model School Diploma.

3. *Academy Class.*—Studying for the Academy Diploma.

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1. *Conditions of Admission and obtaining Diplomas.*

Candidates for admission into the Elementary School Class, will be required to pass an examination in Reading, Writing, the Elements of Grammar, Arithmetic, and Geography; and to produce the certificate and sign the application referred to in Articles 1 and 2 of the Regulations. Admission into each of the higher classes requires a knowledge of the subjects of the previous one.

Each Student must produce a certificate of good moral character from the clergyman or minister of religion under whose charge he has last been, and also testimony that he has attained the age of sixteen years. He will also be required to sign a pledge that he purposes to teach for three years in Some Public School in the Province of Quebec.

There will be a Semi sessional Examination at Christmas, which all Students are required to pass, in order to continue in the classes.

At the close of the first year of Study, students may apply for examination for diplomas giving the right to teach in Elementary Schools; and after two years' study, or if found qualified at the close of the first year, they will, on examination, be entitled to diplomas as teachers of Model Schools.

Students having passed the examination in the Model School Class, or having advanced to the requisite knowledge, may go on to the Academy Class, and, on examination, may obtain the Academy Diploma.

2. *Privileges of Students.*

On complying with the above conditions, all students will be recognized as *Teachers in Training;* and as such will be entitled to free tuition with the use of text books, and to bursaries in aid of their board, not exceeding $36.00 per annum in the case of those in the two first Classes, or $80.00 in the case of those in the Academy Class, should they be successful in obtaining the diploma at the final examination. A portion of this allowance will be advanced to such students as are not resident in Montreal, on their passing the semi-sessional examination at Christmas.

Under the regulations subjoined, and with the view of extending the benefits of the School to all parts of the country, those who reside at a distance of more than ninety miles from the city of Montreal, will also be entitled to a small allowance for travelling expenses, proportionate to the distance.

Students resident in Montreal may share in the bursary fund, on producing certificates from their ministers or clergymen that such aid is absolutely necessary to their continuing in attendance at the school.

In addition to religious instruction of a general Protestant character by the Professors, arrangements will be made for special religious instruction by ministers representing the several denominations with which the students may be connected.

No boarding-house is attached to the institution, but every care will be taken to insure the comfort and good conduct of the students, in private boarding-houses approved by the Principal. Board can be obtained at from $10 to $14 per month.

The Prince of Wales Medal and Prize will be given to the Student taking the highest place in the Model School Class, provided that such Student shall attain to the standard fixed by the Regulations of the Council of Public Instruction for this Medal.

The Earl of Dufferin Medal will be given to the student taking the highest place in the Classical and Mathematical subjects of the Academy class, and passing creditably in the other subjects.

The J. C. Wilson Prize of $40 and a Book, contributed by him as a former Student of the School, will be offered for competition to the candidates for the Elementary Diploma, and will be given for the highest aggregate number of marks.

All the preceding regulations and privileges apply to female as well as to male students.

Persons holding the degree of B. A. or M. A. of any University in the Province of Quebec, may receive the Academy Diploma, on passing an examination in the art of teaching, and in such other subjects necessary to the Academy Diploma, as may not have been included in their University Examinations.

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3. *Course of Study.*

1. ELEMENTARY SCHOOL CLASS STUDYING FOR THE ELEMENTARY SCHOOL DIPLOMA.

With the view of accommodating those who may be unable to enter at the commencement of the Session, or whose previous education may enable them to enter at a more advanced period, the course of study in this class is divided into terms as follows :—

FIRST TERM, from September 1st to December 26.

(*Entrance examination as stated above.*)

English.—Grammar and Composition ; so far as to parse syntactically and write correctly a few short descriptive sentences. Text-Books, Bullion's Grammar and Parker's Progressive Lessons ; Reading and Spelling, Etymology, Penmanship, Elocution.

Geography.—So far as to have a good acquaintance with the Map of the world.

History.—Outline of Sacred and Ancient History.—History of Canada. Text-Books, White and Hodgins.

Arithmetic.—Simple and Compound rules, Vulgar and Decimal Fractions, and Practice, with explanation and demonstration of rules. Text-Book, Sangster's Arithmetic.

Algebra.—The Elementary rules as in Todhunter's Algebra.

Geometry.—First Book of Euclid.

Art of Teaching.—The Physical, Mental and Moral Constitution of Children.

Physics.—The Chief Forces of Nature, Properties and States of Bodies Solids, Liquids and Gases.

French.—Elements of Grammar, easy reading and translation. Text-Books, Student's Companion to the study of French. Darey, Lectures francaises.

Natural History.—Botany as in Gray's Text-Book.

Drawing.—Elements and Simple outlines.

Music.—Vocal Music with Part Songs.

SECOND TERM. January 1st to April 1st

(Pupils entering at the commencement of this term, will be expected to pass a satisfactory examination in the subjects of the previous term.)

English. Grammar and Composition, so far as to be able to analyse simple and complex sentences, and to write correctly a short essay on a familiar subject.—Elocution continued.

Geography.—So far as a good acquaintance with the physical features and political division of the great continents.

History. England and France. Ancient History.

Arithmetic. Proportion, Per-centage, Exchange.

Algebra. Simple Equations of one, two and three unknown quantities.

Geometry. Second and Third Books of Euclid.

Art of Teaching. General Methods of Education.

Physics. Motion. Vibration. Heat and Light.

French. Grammar continued; including Reading, Translation, Oral and Written Exercises.

Natural History, Continued.

Drawing. Landscape, etc., in Pencil.

Music. Elements of Vocal Music, and Part Songs.

THIRD TERM. April 1st. to July 1st.

(Pupils entering at the commencement of this term, will be expected to pass a satisfactory examination in the subjects of the previous terms.)

English.-Advanced Lessons, Grammar and Composition, Elocution continued.

Geography and History.—Advanced Lessons with use of Globes and recapitulation of previous parts of the course.

Arithmetic. Conclusion of Commercial Arithmetic and general Recapitulation.

Book-keeping. By Single Entry.

Algebra. Quadratic Equations and Recapitulation.

Geometry. Recapitulations and Deductions.

Art of Teaching. School arrangements.

Elementary Chemistry. Elements and Constituents of Soils.

French, Natural History, Drawing and Music. Continued as in the previous term.

Religious Instruction will be given throughout the Session.

2. MODEL SCHOOL CLASS, STUDYING FOR THE MODEL SCHOOL DIPLOMA.

Students entering this Class, must have passed a satisfactory examination in the subjects of the Elementary School Class. The Class will pursue its studies throughout the Session, without any definite division into terms :

English.—Principles of Grammar and Composition, Style. History of the English Language. Lectures on English Literature. Elocution.

Geography.—Mathematical, with Nautical Problems, Detailed course of Political and Physical Geography.

History.—Mediæval and Modern, with especial reference to the History of Literature, Science and Art, and Colonization and Commerce.

Education.—Advanced course of Lectures on Educational Subjects.

Mathematics.—Logarithmic, Algebraic and Geometric Arithmetic, Recapitulation of Commercial Arithmetic. Quadratic Equations continued. Ratios and Progression. Theorem of Undermined Coefficients, Binominal and Exponential Theorems. Fifth and Sixth Books of Euclid.

Object Lessons.

Chemistry and Natural Philosophy.—Affinity, Laws of Combination, Principal groups of Salts. Electricity and Electrolysis, Mechanical Physics.

Classics.—Elements of the Latin Language, as in Bryce's 1st Latin Reader.

French.—Student's Companion. Transalation from French into English, and from English into French ; Darey, Lectures francaises.

Agricultural Chemistry.—Principles, and application to Canadian Agriculture.

Drawing.—Figures from the Flat and from Models. Elements of Perspective.

Music.—Instrumental Music, Part Songs, and Rudiments of Harmony.

Religious Instruction throughout the Session.

3. ACADEMY CLASS, STUDYING FOR THE ACADEMY DIPLOMA.

(Students entering this Class must have passed a satisfactory examination in the subjects of the Model School Class.)

English Literature.—An advanced course.

History and Geography.

Logic and Ethics.—As in Abercrombie's Intellectual and Moral Philosophy.

Mathematics.—Trigonometry, Solid Geometry, Theory of Equations, Mechanics and Astronomy. Galbraith and Haughton.

Latin.—Sallust, Catiline ; Virgil, Æneid, Book IV ; Latin Prose Composition, Roman History.

Greek.—New Testament, John's Gospel ; Xenophon, Anabasis B I ; Grammar and History.

Botany.—As in Gray's Text-Book.

French.—Conversation in French. French Literature. Poitevin's French Grammar, Racine and Moliere.

Elocution.

Draw

EXTRACTS FROM THE REGULATIONS.

Special Regulations for the admission of teachers in training.

Article First.—Any person desirous of being admitted as a teacher in training must apply to the Principal of the Normal School, who, on his producing an extract from the Register of Baptisms, or other evidence, showing that he is full sixteen years of age, with the certificate of character and conduct required by the 16th article of the General Rules and regulations, approved by his Excellency the Governor General in Council, on the 22nd December, 1856, shall examine the candidate.

If upon his examination it is found that the candidate can read and write sufficiently well, knows the Rudiments of Grammar in his mother tongue, Arithmetic as far as the rule of three inclusively, and has some knowledge of Geography, the Principal shall grant him a certificate.

Article Second.—The candidate having thus obtained the certificate of the Principal, shall then, (in the presence of two witnesses, who, with the Principal, shall countersign the same,) sign an application in writing for admission, containing the declaration required by the 23rd general regulation. This shall be forwarded to the Superintendent of Education, together with all the certificates and other documents required, and if the whole be found correct, the Superintendent shall cause the name of the candidate to be inscribed in the Register, and notice thereof shall be given to the Principal.

Article Third.—The teachers in training shall state the place of their residence ; and those who cannot reside with their parents, will be permitted to live in boarding-houses, but in such only as shall be specially approved of. No boarding-houses having permission to board male teachers in training will be permitted to receive female teachers in training as boarders, and *vice versa*.

Article Fourth.—Every teacher in training, on passing the examination, will be allowed a sum not exceeding £9 to assist in paying his board. (*)

Article Fifth.—Every teacher in training residing at a distance of more than ninety miles from the City of Montreal, shall be entitled to receive an allowance for travelling expenses proportionate to the distance, but not to exceed two pounds ten shillings *per annum*.

Article Sixth.—The total amount of allowances paid to teachers in training under the foregoing articles shall not exceed £333. 6s 8d. currency, yearly—that being the sum granted for that object ; and when the whole of this amount is appropriated, such teachers in training as may apply for admission shall not be entitled to any portion thereof until vacancies shall occur.

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* Except in the case of Teachers in training for the Academy Diploma, who may receive a sum not exceeding £20.

Special Regulations for Government and Discipline.

Article first.—Teachers in training guilty of drunkenness, of frequenting taverns, of entering disorderly houses or gambling houses, or keeping company with disorderly persons, or committing any act of immorality or insubordination, shall be expelled.

Article Second.—There shall be no intercourse between the male and female teachers in training while in School, or when going to, or returning from it, Teachers of one sex are strictly prohibited from visiting those of the other.

Article Third.—They are on no account to be absent from their lodgings after half-past nine o'clock in the evening.

Article Fourth.—They will be allowed to attend such lectures and public meetings only as may be considered by the Principal conducive to their moral and mental improvement.

Article Fifth.—Proprietors of boarding-houses authorized by the Principal shall report to him any infraction of the rules with which they may have become acquainted.

Article Sixth.—The Professors shall have the power of excluding from the lectures for a time, any student who may be inattentive to his studies, or guilty of any minor infractions of the regulations.

Article Seventh.—Teachers in training will be required to state with what religious denomination they are connected ; and a list of the Students connected with each denomination shall be furnished to one of the Ministers of such denomination resident in Montreal, with a request that he will meet weekly with that portion of the teachers in training, or otherwise provide for their religious instruction. Every Thursday after four o'clock will be assigned for this purpose.

Article Eighth.—In addition to punctual attendance at the weekly religious instruction, each student will be required to attend public worship at his own church, at least every Sunday.

Intending students may obtain all necessary information on application to the Principal or either of the Professors.

MODEL SCHOOL OF McGILL NORMAL SCHOOL.

Head Teacher of Boys' School—Francis W. Hicks, M. A.
" " Girls' School—Jane A. Swallow.
" " Primary School—Lucy H. Derick.

These Schools can accommodate about 300 pupils, are supplied with the best furniture and apparatus, and conducted on the most modern methods of teaching. They receive pupils from the age of six and upwards, and give a thorough English Education. Fee ; Boys' and Girls' Model Schools, 1s. 3d. to 2s. per week ; Primary School, 9d. ; payable weekly.

School Examinations of the McGill University.

FOR THE CERTIFICATE OF THE UNIVERSITY AND THE TITLE OF ASSOCIATE IN ARTS.

Subjects of Examination.—1876.

1. These are divided into two Classes, (I) *Preliminary*, consisting of those in which every Candidate must pass, and (II) *Optional*, consisting of those in which the Candidate may have a choice.

2. The Preliminary subjects, with their values severally, are :—

English Reading	30 *marks.*
English Dictation	40 do.
English Grammar (as in Morell)	50 do.
Arithmetic (all the ordinary rules)	90 do.
Geography (acquaintance with the maps of each of the four Continents, and of British North America)	50 marks.
British History (as in Collier), and Canadian History	50 do.

The Candidates will also be examined in the Gospels, unless objection be made thereto by their parents or guardians, and creditable answering in the same will be mentioned in the Certificate.

Additional marks, not exceeding 20, may be allowed in the Dictation paper, for quality of handwriting.

No candidate can pass unless he shall have obtained at least *one-third* of the total number of marks in each of the above subjects, except Reading and Dictation, in which *two-thirds* will be required.

3. The Optional subjects are divided into three sections as follows :—

(1) Languages.

Latin.

Grammar.
Cæsar, B. G. Bk. I.
Horace, Odes, Bk. I.
Virgil, Æn., Bk. I. } 150 marks.

Greek.

Grammar.
Homer, Iliad, Bk. I.
Xenophon, Anabasis, Bk. I. } 150 do.

French.

Grammar.
Extracts from Molière, in Darey's French Reader. } 100 do.
Translation from English into French.

German.

Grammar.
Adler's Reader, Section II..... } 100 marks.
Translation from German into English.

(2) Mathematics, Natural Philosophy, &c.

Geometry.

Euclid, I. II. III..... 150 do.

Algebra.....

Elementary rules, Involution, Evolution, Fractions, Simple Equations. } 150 do.

Natural Philosophy.

Mechanics and Hydrostatics. (As in Loomis)..... 100 do.

Elementary Mensuration of Surfaces and Solids,

(as in Chambers's Educational Course)..... 100 do.

Mechanical and Architectural Drawing..... 100 do.

(3) English.

The English Language:—

Earl's Philology of the English Tongue, Historic Sketch and chaps. V to VIII.
Trench's Study of Words. } 100 do.

English Literature.

English Literature. Primer by S. A. Brooke.
Scott's Lady of the Lake.
Addison's Sir Roger de Coverley. } 100 do.

Additional Marks, not exceeding 50, may be allowed in the literature paper for quality of Composition.

History,—Freeman's General European History..... 100 do.

Geography,—Physical, Political and Commerical..... 100 do.

Instead of passing in one or more subjects of the English Section, Candidates may, if they prefer it, pass in one or more of the following subjects :—

(4) *Natural Science.*

Zoology, (as in Paterson's Zoology for Schools.)..... 100 do.

Botany, (as in Gray's First Lessons)..... 100 do.

Geology, (as in Dana's Text-Book)..... 100 do.

Chemistry (as in Miller's Introduction to Inorganic Chemistry) 100 do.

Every Candidate must pass in at least one, and not more than three subjects in each of the Optional Sections.

No Candidate will be considered as having passed in any of the above Optional Subjects, unless he has obtained *at least one-fourth* of the total number of Marks obtainable in that subject.

Any Candidate who passes in more than one subject of any section, and who in at least one of those subjects obtains *more than half* the total number of Marks, will be entitled to a Certificate of creditable answering, in that subject.

The total number of Marks gained by every Candidate, including both Preliminary and Optional Subjects, shall be added up, and the Candidates arranged in a printed list, at the close of the Examination, in the order of these totals. No Marks in any subjects shall be counted unless the Candidate has gained at least the minimum number of Marks in that subject.

Candidates passing in French or other Modern Language or languages, and not in Latin or Greek, shall receive a Junior certificate. Candidates passing in Latin and Greek, or in Latin or Greek with a Modern Language, shall receive a Senior certificate.

Candidates taking Senior certificates, shall be termed Associates in Arts of the University.

Every Candidate shall present a certificate of character, and also a certificate from his parents or guardian that his age on the first day of the examination does not exceed eighteen years.

In the case of those who pass in Latin, Greek, English, Algebra and Geometry, the examination will be received as the Matriculation Examination in the Faculty of Arts.

Candidates who fail, or who may be prevented by illness from completing their examinations, may come up at the next examination without extra fee.

The Examination will be held in the William Molson Hall, on Thursday May 25th, and successive days, except Saturday, in the following order.

1. *Preliminary Subjects.*—(May 22,) English; Geography; Gospels; (23,) Arithmetic; British and Canadian History.
1. *Optional Subjects.*—(May 25th,) Latin; French; (28th,) Greek; German; (29th,) Mathematics, &c; (30th,) English, &c; (31st,) Natural Science.

Hours of Examinations, 9 a. m. and 2 p.m.

The Examination fee ($4) must be paid by candidates, to the Secretary of the University, on entering their names.

SCHOOL EXAMINATIONS, 1876.

Passed for Associates in Arts.

J. Herbert Darey.—(*High School.*) Latin,* Greek,* French,* Geometry,* Algebra,* Mensuration,* English Literature,* History,* Geography,* Scripture.*

Paul Theodore Lafleur.—(*High School.*) Latin,* Greek,* French,* Geometry,* Algebra,* Mensuration,* English Literature,* History,* Geography,* Scripture.*

Edwin Hudson Bisset.—(*High School.*) Latin,* French, Geometry,* Algebra,* Mensuration, English Literature,* History,* Geography.*

ANDREW G. ROSS.—(*Proprietary School.*) Latin,* French, German,* Geometry, Algebra, English Literature, History,* Geography,* Scripture.*

JAMES R. FOSTER.—(*Proprietary School.*) Latin, French, German,* Geometry, Algebra, English Literature,* History,* Geography.*

FREDERICK MINDON COLE.—(*High School.*) Latin, French, Geometry, Algebra, Mensuration English Literature,* History, Geography,* Scripture.*

WILLIAM DAWSON MCGREGOR.—(*Braeside Academy.*) Latin, French, Geometry,* Algebra, Mensuration, History,* Geography,* Botany.*

JOHN EWART.—(*Braeside Academy.*) Latin, French, Geometry, Algebra, History,* Geography,* Scripture.*

J. GORDON GIBSON.—(*Dunham Academy.*) Latin,* French, Geometry, English Literature, Geography,* Scripture.*

WILFRRD T. SKAIFE.—(*High School.*) Latin,* French,* Geometry,* Algebra, History,* Geography.*

CHARLES J. WALKER.—(*Proprietary School.*) Latin, French, Geometry, Algebra, English Literature, History,* Geography.*

Passed for Junior Certificate.

WILLIAM R. ROBERTSON.—(*High School.*) French, Geometry, Mensuration, English Literature, History, Geography.

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* Creditable answering.

School Certificates of the University.

1 *Associates in Arts.*

1865

Montgomery Jones
John Ferguson
Charles Cushing
Robert H. Conroy
Samuel Stevenson
Wallace Clarke
Frederick W. Evans
Robert W. Forester
Edward B. Greenshields
Montgomerie Lewis
George Joseph Bull
Albert Murray
Daniel McLachlin

1866

Sidney Arthur Fisher
Charles E. Proteous
Will. W. Walkem
Chas. G. Stewart
Geoffrey W. Porteous
Florence David
Hew D. Whitney
George W. Torrance
Robt. M. Esdaile

1867

Charles H. Ferry
James Rodger
Geoffrey W. Porteous
Thomas C. Thomson
Francis J. Shepherd
Gerald Lloyd

1868

John Fraser Torrance
Will. Osborne M. Cross
Henry G. W. Badgley
John B. Abbott
John Gray Grant
Thomas C. Hempsted

1869

Arthur F. Ritchie
Simon J. Tunstall
Charles R. Jones
O'Hara Baynes
Aaron D. M. DeSola
Charles Jas Fleet
John Thos. Caldwell
James M. Mitchell
John Kay
James Green

1870

William Bell Dawson
Archibald D. Taylor
Hiram B. Stephens
Henry W. Thomas
Samuel Greenshields
Sheringham A. Shepherd
William McEachran
David S. Robertson

1875

William D. Lighthall
W. A. Farwell
Robert T. B. Howard
Charles A. Molson

1876

J. Herbert Darey
Paul Theodore Lafleur
Edwin Hudson Bisset
Andrew G. Ross
James R. Foster
Frederick Mindon Cole
William Dawson McGregor
John Ewart
J. Gordon Gibson
Wilfred T. Skaife
Charles J. Walker

2. *Junior Certificates.*

1875.

Charles F. Dawson
William C. Norris
William S. Kerry
Frank D. Adams

1876

Willliam R. Robertson

Examination Papers

OF THE

McGILL UNIVERSITY,

MONTREAL.

SESSION OF 1875-76.

Montreal:
PRINTED BY LOVELL PRINTING AND PUBLISHING COMPANY,
ST. NICHOLAS STREET.
1876.

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EXHIBITIONS AND SCHOLARSHIPS, 1875.

FIRST YEAR EXHIBITIONS.

GREEK.

WEDNESDAY, SEPTEMBER 15TH:—MORNING, 9 TO 12.

Examiner..... .....REV. GEORGE CORNISH, LL.D.

1. Translate:—Homer, Iliad, I., vss. (*a*) 43–52. (*b*) 331–344.

2. In ext. (*a*) construe:—*τοῦ, κῆρ, ὤμοισιν, αὐτοῦ κινηθέντος, νεῶν, αὐτοῖσι.*

3. Parse the following words:—*αἰδομένω, ἔγνω, ἦσιν, φρεσί, ἄσσον, δός, ἔκηα, βῆ, ἔηκεν, εἵκτην, μείζους, ἀπόφηναι.*

4. Write down some of the principal words that take the Digamma in the poems of Homer. How is that character represented in Latin and English? Give instances. On what ground has its use originally in the Homeric poems been inferred?

5. (*a*) Define the terms *Hiatus, Arsis, Thesis.* State the rule for the effect of the last two on the quantity of vowels. (*b*) Write down the proper designation and the scheme of the metre of the Iliad. (*c*) Scan the first six verses of extract (*b*) and point out any metrical peculiarities.

6. Translate:—Xenophon, Anabasis, I., Chap. vii., sects. 5–9.

7. Write a short account of the expedition of the Ten Thousand, giving dates, and point out its important consequences to Persia.

8. How do you account for the Genitive in the expression *ἰέναι τοῦ πρόσω*? Explain the syntax of the following expressions:—*ἦσαν δὲ ταῦτα δίο τείχη. Κέρσος ὄνομα. εὖρος πλέθρου.*

9. Translate:—Lucian, Charon, sect. 6.

10. State what you know about Lucian and his writings.

11. (*a*) Explain the uses of the Genitive, severally, in the following expressions:—(1) *εἰς τοῦτο ἀνοίας.* (2) *νόμισμα ἀργύρου.* (3) *τὰ τῆς πόλεως.* (4) *φόβος τῶν πολεμίων.* (5) *θεῶν εὐχαί.* (6) *ὁδὸς τριῶν ἡμερῶν.* (*b*) Distinguish between:—*παρὰ νηῶν, παρὰ νησί,* and *πάρὰ νῆας. ἐπὶ Κύρου, ἐπὶ Κύρῳ,* and *ἐπὶ Κῦρον. ὁ ἀγαθὸς ἀνὴρ* and *ἀγαθὸς ὁ ἀνήρ. πάντα δέκα* and *τὰ πάντα δέκα.* (*c*) Decline:—*ταμίας, λελυκώς, θρίξ, ἡδύς, ὅστις.*

12. Translate into Greek:—(1) He admires and praises the good man. (2) The men of the city said this. (3) Cyrus sent for the ships that he might land the heavy armed troops. (4) Both the father and his daughter are good. (5) The Persians were fighting a great battle, but they were conquered by the Greeks.

LATIN.

WEDNESDAY, SEPTEMBER 15TH:—AFTERNOON, 2 TO 5.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate:—Livy, V., Chap. viii., down to *poterant hoste.*

2. Explain carefully the cases of the following and point out their dependence:—(*a*) his tribunis. (*b*) Anxuri. (*c*) receptando. (*d*) Veiis. (*e*) munimentis.

3. (*a*) Write down the Nominative of the proper nouns from which the following are severally formed:—Capenatium, Faliscorum, Clusinum, and give the other terminations of Gentile names most commonly in use. (*b*) Explain the following terms used by Livy:—(1) Per intercessionem. (2) Fustuarium. (3) Aggerem ac vineas. (4) Cooptatos tribunos. (5) Denis millibus æris gravis. (6) Lectisternium.

4. Translate:—Cicero, Pro Leg. Manil., Chap. xii., down to *navem esse audiatis.*

5. Name the geographical position of the following places mentioned in this oration:—Cnidus, Colophon, Brundisium, Oceani ostium, Achaia, Duabus Hispaniis, Italiæ duo Maria. *Gentes ac nationes*:—Distinguish between these words.

6. On what occasion and for what object was this speech made by Cicero?

7. Translate:—Horace, Odes I., Ode vii.

8. Name the measure employed in the above extract, and scan vss. 1–8.

9. (*a*) Parse the following words:—Intactæ, percussit, hæsit, sēvĕrĭs, sēvērīs, desisse, amiserint, assuestis, deserturos, veniere. (*b*) Derive the following:—Exilis, semestri, lenimen, æquora, molli, simplex, nobilis, stipendium. (*c*) Decline:—Æra, republica, aurium, edite, teretes, grandinis.

10. Give instances of *Regular, Irregular, and Defective* Comparison of Adjectives.

11. Define and illustrate the terms *Root*, *Stem*, *Prefix*, and *Suffix*. What Suffixes are used to denote agency?

12. Translate into Latin:—

(*a*) It is the duty of all men to obey the laws, and to be mindful of the benefits they receive from the commonwealth. (*b*) Brutus pretended to be mad in order the more easily to deceive his enemies, and to serve his country. (*c*) He said that he had slept a good sleep, but had dreamed a very strange dream. (*d*) He was a man of a good disposition, and one whom no man excelled in valour and love to his country. (*e*) He was born at Rome, educated at Athens, married a wife at Corinth, and died at Carthage. (*f*) Herodotus relates, that Thales of Miletus predicted to the Ionians an eclipse of the sun, and that it took place at the appointed time. (*g*) It is of great importance to the state that bad men should not make the laws. (*h*) I fear that he is going to conceal these things from his parents, and that they will not find them out.

MATHEMATICS.

THURSDAY, SEPTEMBER 16TH:—MORNING, 9 to 12.

Examiner,.....ALEXANDER JOHNSON, LL.D.,

1. Construct an isosceles triangle which shall have each of the base angles double the vertical angle.

2. Given any three straight lines intersecting one another, describe all the circles which will each touch the three lines.

3. If two chords of a circle intersect within the circle the rectangles under their segments are equal.

α Prove that the rectangles are equal, also if the point of intersection be outside the circle.

4. In equal circles, the arcs upon which equal angles stand are equal, whether the angles be at the centres or the circumferences.

α Two parallel chords in a circle intercept equal arcs.

5. If one circle touch another internally, the straight line which joins their centres being produced shall pass through a point of contact.

6. Cut a given straight line so that the rectangle under the whole line, and one part shall be equal to the square of the other. Show that the latter is the greater segment.

7. The rectangle under the sum and difference of two lines is equal to the difference of their squares.

8. The square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the two sides.

9. If a perpendicular be let fall from the vertex of a triangle on the base the difference of the squares of the sides is equal to the difference of the squares of the segments of the base.

MATHEMATICS.

THURSDAY, SEPT. 16TH:—AFTERNOON, 2 TO 5.

Examiner.....ALEXANDER JOHNSON, LL.D.

1. Given the first term (a) and the common ratio (r) of a geometrical series, find the nth term and the sum of the series.

a. If r be less than 1 find the sum of the series *ad infinitum*.

2. Find two numbers whose difference is 8 and the harmonic mean between them $1\frac{4}{7}$.

3. Find two numbers such that their sum, product, and difference of their squares shall be equal.

4. Solve the equation:—

$$x - y = 1 \;\; ; \;\; x^3 - y^3 = 19 \; :$$

$$ax^2 + bx + c = 0 \; :$$

$$\left\{ \begin{array}{l} \frac{1}{4}(2x - y) + 1 = \frac{1}{5}(7 + x) \\ \frac{1}{6}(3 - 4x) + 3 = \frac{1}{2}(5y - 7) \end{array} \right\} :$$

$$\frac{11}{12x + 11} + \frac{5}{6x + 5} = \frac{7}{4x + 7}.$$

5. What is the first hour after 6 o'clock at which the two hands of a watch are at right angles to each other.

6. Find the greatest common measure of $20x^4 + x^2 - 1$ and $25x^4 + 5x^3 - x - 1$

7. Simplify

$$\frac{x - \dfrac{x - y}{1 + xy}}{1 + \dfrac{x(x - y)}{1 + xy}}$$

8. Add $2\frac{1}{2} + 3\frac{1}{4} - \frac{5}{7}$ and divide the result by half the difference between $\frac{7}{9}$ and $\frac{11}{12}$.

9. Reduce 3933·93′ to the equivalent vulgar fraction, and prove the truth of the result.

10. How much money must be invested in Bank stock which stands at $137\frac{1}{2}$ in order to yield an income of $400 a year, the stock paying 8 per cent. per annum.

11. British standard silver contains 37 parts in 40 of fine silver, and 1 lb. Troy of standard silver is coined into 66 shillings. Calculate the value of the money which can be coined from 100 lbs. avoirdupois of fine silver.

12. The greatest amount of sea salt which 10 gallons of pure water can dissolve is 37 lbs. How much salt will be required to saturate 2 gallons and 3 quarts?

13. Find the interest on £124 17s. 6d. at $5\frac{1}{2}$ per cent. per annum for 130 days.

ENGLISH GRAMMAR.

FRIDAY, SEPTEMBER 17TH :—MORNING, 9 TO 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. 1st. Give the defining marks of the noun; 2nd. The classification of nouns, with examples of each class.

2. Mention the two principal processes for obtaining noun forms to signify what is expressed by verbs.

3. On what principles may the employment of verbs for nouns or of nouns for verbs, be explained?

4. In what respect is a pronoun said to be the contrast of a proper name?

5. Mention the peculiarities in the use of "we" for "I" and of "thou" for "you."

6. Mention and explain the two different significations in which the relatives "who" and "which" are applied.

7. Besides the use of the pronoun, what other means are employed to save the repetition of the noun?

8. Give the definition of an adjective: how is it distinguished from a noun?

9. Are "No" and "None" followed by the singular or plural?

10. Give the classification of adjectives.

11. Explain the peculiarities that belong to copula or apposition verbs.

12. Give the substance of what is said in regard to auxiliary verbs.

13. How are prepositions distinguished from adverbs and conjunctions?

14. What are the motives usually assigned for attributing the masculine or feminine gender to inanimate objects?

15. What is said in regard to the formation of the plural of compound nouns?

16. Decline the pronouns, personal, demonstrative and relative.

17. Give the meanings of the different tenses of the verb, in the active voice.

SUBJECT OF COMPOSITION.

The evils of Intemperance in the use of alcoholic drinks.

SECOND YEAR EXHIBITIONS.

GREEK.

WEDNESDAY, SEPTEMBER 15TH:—MORNING, 9 TO 12.

Examiner.....REV. GEORGE CORNISH, LL.D.

1. Translate:—Homer, Odyssey, IX., vss. 231–251.

2. (*a*) Write a sketch of the life of Homer as handed down to us by the ancients. (*b*) Give an account of the preservation of the Homeric poems and of their transmission from ancient to modern times. (*c*) State the theory of Wolf and of his school touching the authorship and composition of the poems.

3. Translate:—Homer, Iliad, VI., vss. 12–19 and 318–331.

4. In the above extracts, explain the construction of:—vs. 12—*βοήν*. 14—*βιότοιο*. 16—*οἱ*. 319—*δουρός*. 326—*καλά*. 331—*πυρὸς δηίοιο*. Od., IX., 29—*θεάων*.

5. Parse the following verbs:—*ἔπραθον, ἐξέφθιτο, ἔβην, δέδμητο, περιδοίμην, πεπαλάχθαι, ἥσατο, ἑκέκαστο, καταξέμεν, οὖτα*.

6. Distinguish between:—*κράτος—κρατός. δημός—δήμῳ. ἦ—ἤ—ἦ. τὸν οὐδὸν—τὴν οὐδόν. ἤδη—ἤδη. ἀνα—ἀνά. πολέων—πόλεων*.

7. Translate:—Xenophon, Hellenics, I. (*a*) Chap. i., sects. 10–13. (*b*) Chap. vi., sects. 23–25.

8. (*a*) *Ὀλυμπιὰς τρίτη καὶ ἐνενηκοστή*:—Give the above date B. C. and A. U. C. (*b*) Give the value of the *ὀβολός, δραχμή, μνᾶ*, and *ταλαντον*, severally. (*c*) Where were Thurii, Gytheum, Methymna, Mitylene, Eïon, Byzantium, respectively?

9. Translate:—Arrian, III., Chap. 7, sects. 6 and 7.

10. When did Arrian live and write? Whom did he take as his literary model? Is his history trustworthy?

11. (*a*) Write down the original personal endings of the *Indicative Active*, in the *Principal* and *Historical* Tenses. (*b*) Name the Tenses used to express action as *continued, completed*, or *indefinite*. Define the general use of the Moods, severally.

12. Translate into Greek:—(1) The general said that the soldiers ought to fight bravely. (2) He said that if the king would trust him, he would obey him in all things. (3) They arrived just three days too late for the battle and then sailed down the river. (4) Under the leadership of Pericles the Athenians accomplished many noble works.

LATIN.

WEDNESDAY, SEPTEMBER 15TH :—AFTERNOON, 2 TO 5.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate :—Cicero, Select Letters, ep. xxxvi.

2. Give the derivation and meaning of the following words taken from these Letters :—bellus, subimpudens, syngrapham, lautus, camino, andaba tam, essedum, idus, creterrarum, intercalares.

3. Translate :—Horace, Odes III., Ode xxix., vss. 29-64.

4. (*a*) *Tyrrhena regum progenies* :—Explain this, and write a sketch of the life of Maecenas, naming the poets and literary men whom he was intimate with. (*b*) Write down the name and scheme of the measure of the above ode, and scan vss. 29–32.

5. Explain carefully the government of the following in ode xxix :—vs. 1, tibi. 5, morae. 24, ventis. 27, Cyro. 29, temporis. 41, sui, and name the case of each.

6. Translate :—Livy, V., chap. xliv.

7. Translate :—Virgil, VI., vss. 440–455. Explain briefly the allusions.

8. Parse the following verbs :—oblitum, palati, quæsita esset, depasta, supposta, desueta, præterlabere, lætere, defixæ, districti.

9. Write short notes, with dates, on (1) Consules. (2) Tribuni plebis. (3) Dictator. (4) Tribuni militum consulari potestate. Give the dates of the capture of Veii ; the battle of the Allia ; the Samnite Wars.

10. Explain the method of computing time used by the Romans, and translate, according to that method, September 15th, A.D. 1875.

11. What cases are the following words severally construed with :—parcus, plenus, edax, gratus, utilis, tenus, penes, coram, juvat, expedit, interest, induor, condemno, credo, prohibeo.

12. Translate into Latin :—Then a young man of noble blood, Caius Mucius by name, went to the senate, and offered to go to the camp of the Etruscans, and to slay king Porsenna. So he crossed the river and made his way into the camp and there he saw a man sitting on a high place, and wearing a scarlet robe, and many coming and going about him ; and saying to himself, " This must be king Porsenna," he went up to his seat amidst the crowd, and when he came near to the man he drew a dagger from under his garment, and stabbed him. But it was the king's scribe whom he had slain, who was the king's chief officer ; so he was seized and brought before the king, and the guards threatened him with sharp torments, unless he would answer all their questions.

MATHEMATICS.

THURSDAY, SEPTEMBER 16TH :—MORNING, 9 to 12.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Construct a rectilinear figure similar to a given one, and equal to another.

2. If four right lines be proportional the similar rectilinear figures similarly described on them will be also proportional.

3. Inscribe a regular hexagon in a circle.

4. The angle in a semi-circle is a right-angle, in a segment greater than a semi-circle in acute, and less than a semi circle is obtuse.

5. Given $\sin A = \frac{1}{2}$ find sec. A.

6. Prove

$$\frac{\sin A + \sin B}{\sin A - \sin B} = \frac{\tan \frac{1}{2}(A + B)}{\tan \frac{1}{2}(A - B)}$$

7. Investigate a formula for determining the number of seconds in an angle whose circular measure is given.

8. Prove $\sin (A + B) = \sin A \cos B + \cos A \sin B$.

9 A can do a piece of work in 10 days, which B can do in 8; after A has been at work upon it 3 days, B comes to help him: in what time will they finish it?

10. Compare $6\sqrt{3}$ and $4\sqrt{7}$ determining which is the greater.

11. Solve the equations

$$\frac{5x}{x+4} - \frac{3x-2}{2x-3} = 2;$$

$$\frac{x+4}{3x+5} + 1\tfrac{1}{6} = \frac{8x+8}{2x+3}$$

12. Prove the rule for finding the greatest common measure.

MATHEMATICS.

THURSDAY, SEPTEMBER 16TH :—AFTERNOON, 2 to 5.

1. Reciprocate the theorem that the three perpendiculars of a triangle meet in the same point.

2. The distances of any two points from the centre of a given circle, are to one another as the distances of each point from the polar of the other.

3. If any point outside a circle be joined to the vertices of any circumscribed quadrilateral, and two tangents drawn from the point, these six lines form a pencil in involution.

4. Through a given point, draw a straight line so as to form with the sides of a given angle a triangle of given area.

5. Describe a circle passing through a given point, and touching a given straight line and a given circle, the circle and point lying on the same side of the straight line.

6. A triangle is given in species, one vertex turns round a fixed point, whilst another vertex moves along the circumference of a given circle; find the locus of the third vertex.

7. The rectangle under the sides of a triangle is equal to the square on the bisector of the vertical angle, together with the rectangle under the segments of the base made by the bisector of the vertical angle.

8. Inscribe a square in a triangle.

9. Show by the method of Indeterminate Co-efficients that

$$\frac{1+x}{(1-x)^3} = 1^2 + 2^2 \cdot x + 3^2 \cdot x^2 + 4^2 \cdot x^3 + 5^2 \cdot x^4 + \&c.$$

10. Explain the method of finding the present value of an annuity of £1, to be paid as long as either of two specified individuals is living.

11. Find a series of converging fractions approximating to the value of

$$\frac{314159}{100000}.$$

12. Solve the equation—

$$\frac{2a\sqrt{1+x^2}}{1-x+\sqrt{1+x^2}} = a + b + 1$$

ENGLISH GRAMMAR.

FRIDAY, SEPTEMBER 17TH:—MORNING, 9 TO 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give a definition of the Verb.

2. Enumerate the actual inflections of the English Verb.

3. Mention what is said in regard to the old and new conjugations of the Verb.

4. In what cases does the transitive Verb not precede its object?

5. State the general rule for the placing of the article, when two or more substantives follow each other?

6. What are the different modes of the enlargement of the subject and the object of a Sentence?

7. Describe and give examples of the noun clause, the adjective and the adverbial clauses.

8. Give examples of the simple, the compound and the complex Sentence.

9. What do you remark in the construction—"having failed in this attempt, no farther trial was made.

10. In the forms, "It is I, it is me, &c.", what is the best way of reconciling grammar with usage?

11. Give a grammatical analysis of the following sentences:—

"The river that flows by the city presents facility for immense commercial enterprise;"

"They found so many that they could not carry them home."

"Night, Sable goddess, from her ebon throne,
In rayless majesty, now stretches forth
Her leaden sceptre, o'er a slumbering world.

12. Give a historical account of the Anglo-Saxon element of the English Language.

13. Mention the different periods at which the classical element was introduced, and the principal facts relating to the subject that appertain to each period.

14. Mention the other languages or dialects that have contributed to the English vocabulary.

15. What is the Metre generally, and what does English Metre essentially consist in?

16. What are measures in prosody?

17. Mention the rules for perfect rhymes.

18. Enumerate and explain the principal Metres employed in English poetry.

SUBJECT FOR COMPOSITION.

On the bearing of scientific knowledge upon the development of the wealth of a country.

FRENCH.

MONDAY, SEPTEMBER 20TH :—MORNING, 9 TO 12.

Examiner,.....P. J. DAREY, M.A., B.C.L.

1. Translate into English:

ELISE. Ah! mon père, prenez des sentiments un peu plus humains, je vous prie, et n'allez point pousser les choses dans les dernières (1) violences du pouvoir paternel. Ne vous laissez point entrainer (2) aux premiers mouvements de votre passion, et donnez-vous le temps de considérer ce que vous voulez faire. Prenez la peine de mieux voir celui dont vous vous offensez (3), Il est tout (4) autre que vos yeux ne le jugent; et vous trouverez moins étrange que je me sois donnée (5) à lui, lorsque vous saurez que, sans lui, vous ne m'auriez plus il y a longtemps. Oui, mon père, c'est celui qui me sauva de ce grand péril que vous savez que je courus dans l'eau, et à qui vous devez la vie de cette même fille dont....

MOLIERE, *l'Avare.*

2. Write in full the primitive tenses of all the verbs in the first sentence.

3. (1) In what sense is the word *dernières* used. (2) What is the literal meaning of *entraîner.* (3) Explain fully the meaning of *de mieux voir celui dont vous vous offensez.* (4) In what part of speech is *tout?* (5) Why has *donnée* two *e's?*

4. Explain the idiomatic difference between the French verbs *assister* and *abuser* and the English verbs to *assist* and to *abuse.*

5. Translate into English the words, *sain, saint, ceint, cinq, le sein,* and *le seing;* and state to what part of speech they respectively belong.

6. Translate the words *du* and *dû; sur* and *sûr; des, dès* and *les dés; cru* and *crû* and *mur* and *mûr; la tache* and *la tâche; jeune* and *le jeûne.*

7. Translate into French:

Modesty is a very good quality, and which generally accompanies true merit; it engages and captivates the minds of people; as, on the other hand, nothing is more shocking and disgustful than presumption and impudence. We cannot like a man who is always speaking well of himself, and who is the hero of his own story. On the contrary, a man who endeavours to conceal his own merit, who sets that of other people in its true light, who speaks but little of himself, and with modesty, such a man makes a favourable impression upon the understanding of his hearers, and acquires their love and esteem.

CHESTERFIELD, *Letters to his son.*

CHEMISTRY.

MONDAY, SEPTEMBER 20TH :—AFTERNOON, 2 TO 5.

Examiner,.....B. J. HARRINGTON, B.A., Ph.D.

1. What do you understand by elements being in the nascent state?

2. Define isomorphism and dimorphism.

3. State Dalton's atomic theory and Ampère's law.

4. How is Nitrous Oxide prepared and what are its properties?

5. How much Hydric Sulphate can be obtained from 2·5 tons of Iron Pyrites, supposing the Pyrites to be pure and no loss to occur?

6. What are Lakes and Mordants?

7. How is Sulphurous Anhydride prepared, and what are its properties?

7. Give the composition of the following substances :—Chrome-green, Scheele's Green, Putty Powder, Corrosive Sublimate, and Sugar of Lead.

9. What are the properties and uses of the metal Platinum?

10. Explain the terms atomicity and basicity.

SCIENCE SCHOLARSHIPS.

DIFFERENTIAL AND INTEGRAL CALCULUS.

THURSDAY, SEPTEMBER 16TH :—MORNING, 9 TO 12.

Examiner.....ALEXANDER JOHNSON, LL.D.

1. Investigate a formula for finding the radius of curvature, and the co-ordinates of the centre of the osculating circle of any given curve.

2. Show that the equation of the evolute of the ellipse is

$$\frac{x^{\frac{2}{3}}}{A^{\frac{2}{3}}} + \frac{y^{\frac{2}{3}}}{B^{\frac{2}{3}}} = 1$$

where $A = \frac{a^2-b^2}{a}$, $B = \frac{a^2-b^2}{b}$.

3. If s be the length of any curve prove

$$\frac{ds}{dx} = \sqrt{1 + \frac{dy^2}{dx^2}}$$

a. Apply this to find the circumference of a circle whose radius is r.

4. Eliminate the arbitrary function from the equation

$$z = \int (ax + by)$$

5. If $u = \dfrac{1}{\sqrt{(a-x)^2 + (b-y)^2 + (c-z)^2}}$ prove that

$$\frac{d^2 u}{d x^2} + \frac{d^2 u}{d y^2} + \frac{d^2 u}{d z^2} = 0$$

6. Find x when u is a minimum in

$$a u^3 - u^2 x^2 + x^4 = 0$$

7. Find the value when $x=0$ of

$$\frac{log.\ tan\ x}{log.\ tan\ 2\ x}$$

8. State and prove Taylor's Theorem.

9. Differentiate

$$u = x^{\frac{1}{x}}\ ;\ u\ sin\ (log.\ x)\ ;\ u = e\ sin\ x\ cos\ x$$

10. Find the area of the curve of which the equation is

$$y^3 - 3\ ax\ y + x^3 = 0$$

11. Find the formula for integrating

$$\frac{du}{dx} = \frac{x^m}{\sqrt{2\ ax - x^2}}$$

and show to what integral it will be finally reduced.

12. Integrate

$$\int_{\theta} (sin\ \theta)^6\ (cos\ \theta)^3\ ;\ \int_{x} l^{ax}\ sin\ k\ x\ ;\ \int_{x} x^4\ log.\ x\ .$$

13. Integrate

$$\int_{x} \frac{x^3}{(1+x^2)^{\frac{5}{2}}}\ ;\ \int_{x} \frac{1}{x^4\sqrt{1+x^2}}\ ;\ \int_{x} \frac{1}{a + bx + c\,n^2}$$

14. Investigate the method of integrating a rational fraction

$$\frac{U}{V}$$

where U and V are functions of x, if V have the form $V=(x-a)^m\ Q$, Q being another function of x.

ANALYTICAL GEOMETRY.

THURSDAY, SEPTEMBER 16TH:—AFTERNOON, 2 TO 5.

Examiner, ...ALEXANDER JOHNSON, LL.D.

1. Find the envelope of the base of a triangle, inscribed in a conic, and whose two sides pass through fixed points.

2. Prove Brianchon's theorem for a conic, viz. :—"The three opposite diagonals of every hexagon circumscribing a conic intersect in a point."

3. Form the equation of the conic passing through the five points:
(1, 2), (3, 5), (—1, 4), (—3, —1), (—4, 3).

4. If any line cut two similar and concentric conics its parts intercepted between the conics will be equal.

5. Explain the use of the *concentric angle* in expressing the position of a point on an ellipse.

6. Find the locus of the points of contact of tangents to a series of confocal ellipses from a fixed point on the axis major.

7. If any line cut an hyperbola, the portions intercepted between the curve and its asymptotes are equal.

8. The angle subtended at the focus of a central conic by any chord is bisected by the line joining the focus to its pole.

9. Find the locus of the middle points of chords, parallel to a given line, for a conic expressed by the general equation.

10. The polars of a given point, with regard to a system of circles having a common radical axis, always pass through a fixed point.

11. Find the equation of the tangent at the point $x'\,\eta'$ to the circle $x^2 + y^2 = r^2$.

12. Find the polar equation of the line passing through the points whose polar co-ordinates are ρ', θ'; ρ'', θ''.

13. Given base and difference of base angles of a triangle; find the locus of the vertex.

14. The three bisectors of the angles of a triangle meet in a point.

HIGH ALGEBRA—TRIGONOMETRY.

MONDAY, SEPTEMBER 20TH:—MORNING, 9 TO 12.

Examiner, ...ALEXANDER JOHNSON, LL.D.

1. Find the sum of the fourth powers of the roots of

$$x^5 - 3x^3 - 5x + 1 = 0.$$

2. Transform the equation

$$x^4 + 1 = 0.$$

into another whose roots shall be the squares of the differences of its roots.

3 Calculate by Horner's method the roots of the equation

$$x^3 + 10x^2 + 8x - 120 = 0.$$

4. Apply Sturm's theorem to show that there is only one real in the following equation, and determine its situation:

$$x^3 - 6x^4 + 8x + 40 = 0.$$

5. Investigate Euler's method of solving a biquadratic equation.

6. Explain the method of depressing a reciprocal equation of an even degree with its last term positive.

7. Prove that the determinant

$$\begin{vmatrix} s_0 & s_1 & s_2 \\ s_1 & s_2 & s_3 \\ s_2 & s_3 & s_4 \end{vmatrix} = \Sigma\,(\alpha-\beta)^2(\beta-\gamma)^2(\gamma-\alpha)^2$$

where $\alpha\ \beta\ \gamma$, &c., are the roots of an equation, and s is the sum of the p^{th} powers of the roots.

8. Prove

$$\begin{vmatrix} \sin\alpha & \sin\beta & \sin\gamma \\ \cos\alpha & \cos\beta & \cos\gamma \\ \sin\alpha\cos\alpha & \sin\beta\cos\beta & \sin\gamma\cos\gamma \end{vmatrix} = 2\sin\tfrac{1}{2}(\alpha-\beta)\sin(\beta-\gamma)\sin\tfrac{1}{2}(\alpha-\gamma) \times \{\sin(\alpha+\beta)+\sin(\beta+\gamma)+\sin(\gamma+\alpha)\}$$

9. In a spherical triangle

$$\sin c \cot a = \cot A \sin B + \cos B \cos c$$

10. Prove the following expression for the spherical excess and show how it gives the area of a spherical triangle.

$$\cot\tfrac{1}{2}\Sigma = \frac{\cot\tfrac{1}{2}a\cot\tfrac{1}{2}b + \cos C}{\sin c}$$

11. Prove

$$\log_e(y+1) = \log_e y + 2\left\{\frac{1}{2y+1} + \tfrac{1}{3}\left(\frac{1}{2y+1}\right)^3 + \&c.\right\}$$

12. Prove

$$2^4\cos^5\theta\cos 5\theta + 5\cos 3\theta + 10\cos\theta$$

investigating the general theorem.

GEOMETRICAL CONIC SECTIONS—SOLID GEOMETRY—ALGEBRA.

MONDAY, SEPTEMBER 20TH:—AFTERNOON, 2 TO 5.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. If two chords of an ellipse intersect one another, the rectangles contained by their segments are proportional to the squares of the diameters parallel to them.

2. The tangent to the hyperbola at any point P makes equal angles with the focal distances SP and $S'P$.

3. The area of any parallelogram formed by drawing tangents to the hyperbola and its conjugate, at the extremities of a pair of conjugate diameters, is equal to the rectangle contained by the axes.

4. The area of the ellipse is equal to the area of the circle described on the major axis as diameter multiplied by $\frac{b}{a}$.

5. If ρ be the radius curvature of a parabola at any given point to which the radius vector from the focus is d, and if p be the perpendicular from the focus on the tangent at the point then

$$\rho = \frac{2d^2}{p}$$

6. Draw a parabola to touch a given circle at a given point, and such that its axis may touch the same circle in another given point.

7. Draw a straight line perpendicular to a given plane from a given point above it.

8. If a solid angle be contained by three plane angles, any two of them are greater than the third.

9. Apply the Binomial Theorem to find $(1.01)^{-\frac{5}{2}}$ to 6 places of decimals.

10. The number of combinations of $\frac{1}{2}n$ things 4 together is $3\frac{3}{4}$ of the no. of combinations of $\frac{1}{4}n$ things 3 together; find n.

11. The sum and difference of the Arithmetical and Geometric means between two numbers are 9 and 1 respectively; find them.

12. Prove the formula for the sum of an arithmetical series, when the first, the last term, and the number of terms are given.

BOTANY.

THURSDAY, SEPTEMBER 16TH :—MORNING, 9 to 12; AND AFTERNOON, 2 to 5.

Examiner,.....J. W. DAWSON, LL.D., F.R.S.

1. Describe the parenchyma of a Leaf, with its modifications in aquatic and condensed plants. State its functions.

2. What are the special characters of the prosenchyma of Pines, and the parenchyma of Nut-shells.

3. Explain the principal modifications of the Anther and modes of dehiscence and of application of the Pollen to the Stigma.

4. Describe the Ovule, and state the changes which it undergoes before fertilization.

5. Describe the changes immediately succeeding the fertilization of the ovule, and the structure of the ripened Seed.

6. In what respects do Gymnosperms resemble Cryptogams, and in what respects Angiospermous Exogens.

7. How does the Heart-wood of Exogens differ from the Alburnum.

8. Describe the organs of fructification in Mosses, and compare them with those in Ferns and Lichens.

9. State the difference between a natural and artificial system in Botany.

10. State the difference between a species and a variety.

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11. Give the characters of the tribes of North American *Ranunculaceæ*, with examples of the genera.

12. What are the principal generic forms of *Araceæ*, *Papaveraceæ*, *Rosaceæ*, and *Smilaceæ* in Canada?

13. Explain fully the distinctive characters of *Gramineæ* and *Cyperaceæ*.

14. Give a detailed account of any of the orders of Monopetalous Exogens, with the Canadian genera and species.

15. Characterize the orders *Equisetaceæ* and *Lycopodiaceæ*, and state the points most important in their determination.

16. Give the history, habits, and properties of any Canadian Parasitic Plant.

17. State the peculiarities of the floral organs in *Betulaceæ*, *Cruciferæ* and *Violaceæ*.

18. Describe any Canadian order containing Edible Fruits, with its most important species.

19. State the distinctions between the genera of Canadian *Polypodineæ*.

Special Examination on Specimens,—Monday 9 to 12.

CHEMISTRY.

MONDAY, SEPTEMBER 20TH:—AFTERNOON, 2 TO 5.

Examiner,.....B. J. HARRINGTON, B.A., Ph.D.

1 Define specific heat, and state what relation the specific heat of an element bears to its atomic weight.

2. How are we enabled to determine the presence of various elements in the sun and other heavenly bodies?

3. Explain the meaning of electrolysis, giving examples.

4. How may the atomic weight of an element which cannot be examined in the gaseous state be determined?

5. Point out the analogies existing between the different members of the Chlorine group.

6. Describe the preparation of Phosphorus, and state what variation from the general law of atomic volume is afforded by this element.

7. What quantities of Calcic Carbonate and Hydric Chloride will be required to make 10 litres of Carbonic Dioxide at a temperature of 15° C and standard pressure? What will be the weight of the Calcic Chloride produced?

8. Describe the manufacture of Potassic Nitrate and Sodic Carbonate.

9. By what tests may Copper, Tin and Arsenic be recognized when in solution?

10. Explain fully the following reactions:

$$Na\,C_2\,H_3\,O_2 + Na\,H\,O = Na_2\,C\,O_3 + H_4\,C.$$
$$Hg + 2\,H_2\,S\,O_4 = Hg\,S\,O_4 + 2\,H_2\,O + S\,O_2$$

LOGIC.

FRIDAY, SEPTEMBER 17TH:—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL.D.

1. Distinguish (*a*) *singular* and *common*, (*b*) *connotative* and *inconnotative* (*or absolute*), terms, giving an example of each class.

2. (*a*) What is meant by Logical Division and Definition respectively? (*b*) Give the principal rules for each.

3. Distinguish the parts of which a proposition is composed, illustrating the distinction by an example.

4. (*a*) When is a proposition logically converted? (*b*) Distinguish the different kinds of conversion.

5. Convert the following propositions:

(*a*) No science has reached perfection; (*b*) Some sciences are exact; (*c*) Some men are not trustworthy; (*d*) All intelligent beings are responsible.

6. Give the sign indicating the quantity and quality of each of the propositions under the previous question.

7. Name and state the several opposites of each of these propositions.

8. (*a*) Define Mood and Figure. (*b*) Distinguish the different figures the syllogism.

9. Why cannot I E form the premises of any syllogism?

10. (*a*) To what figures do Camestres, Felapton, and Bokardo, respectively belong? (*b*) Explain the meaning of their significant consonants.

11. Name the mood and figure of the following syllogism, and reduce it to the first figure:—

The faculty of speech is not possessed by any of the lower animals;
The faculty of speech is possessed by man:
Therefore something possessed by man is not possessed by any of the lower animals.

12. (*a*) What premiss alone in a Sorites may be negative? (*b*) Explain the reason.

13. Distinguish the main divisions of the Fallacies, and the two main subdivisions of each.

14. Explain (*a*) Fallacia Plurium Interrogationum, (*b*) Petitio Principii, (*c*) Ignoratio Elenchi.

15. Name each of the following Fallacies, and the class to which it belongs:

(*a*) Whatever is universally believed is a truth;
The existence of God is not universally believed;
Therefore it is not a truth.

(*b*) Whatever is expedient is right;
A lie is sometimes expedient:
Therefore a lie is sometimes right.

CLASSICAL AND MODERN LANGUAGE SCHOLARSHIPS.

GREEK.

WEDNESDAY, SEPTEMBER 15TH:—MORNING, 9 TO 12.

Examiner.....REV. GEORGE CORNISH, LL.D.

1. Translate:—Herodotus Bk. VIII., chaps. lxxii–iii.

2. Write explanatory notes on the following:—(*a*) Κάρνεια. (*b*) αὐτόχθονα. (*c*) ἐπήλυδα. (*d*) μηδὲ πυρφόρον περιγενέσθαι,—(6.) (*e*) δείλην ὀψίην,—(9.) Name the divisions of the day. (*f*) πρόξενος.

3. Translate:—Thucydides, Bk. I., chap. l.

4. Explain carefully the syntax of the following extracts:—(*a*) ἀς καταδύσειαν. (*b*) φονεύειν * * ἢ ζωγρεῖν. (*c*) ἀμφοτέρων. (*d*) ἐπεπαιώνιστο αὐτοῖς. (*e*) καὶ οἱ Κορίνθιοι:—Explain the force of καὶ as here used. (*f*) τοῦ οἴκαδε πλοῦ,—(52). (*g*) σπονδὰς λύοντες—τὰς σπονδὰς λύετε:—What difference is caused by the use of the article?

5. Translate:—Xenophon, Hellenics, Bk. I., chap. vi., secs. 29–31.

6. (*a*) In what year of the Peloponnesian war did the events here recorded take place? (*b*) Give the geographical situation of Arginusae, with a plan of the hostile fleets as here described.

7. How do Herodotus, Thucydides, and Xenophon stand related to each other in their treatment of Grecian history?

8. Translate:—Demosthenes, Olynthiacs, II., sects, 22–23.

9. Explain briefly the meaning of the following in the political constitution of Athens:—*οἱ ἄρχοντες, ἡ ἐκκλησία, τὰ θεωρικά, αἱ λειτουργίαι, προβούλευμα, ψήφισμα.*

10. Translate:—Euripides, Medea, vss. 686–705.

11. (*a*) ἄτιμοι ἐσμέν:—Explain this usage of the *Masculine plural.* (*b*) ἔφυ, 690; ἦν, 701;—explain, and illustrate from Horace this use of the Imperfect. (*c*) καρτερεῖν δὲ βούλεται:—What other reading? (*d*) ἦσθεν' ἠδικημένη, 26:—Name the other verbs that are construed with the participle. (*e*) σοῦ, 51:—on what does the *Gen.* depend? (*f* ἐλᾶν, 69:—what tense and how is it formed?

12. (*a*) Name the dialects used by the writers from whom the above extracts have been taken. (*b*) Contract and accentuate the *Pres.* and *Imperf. Ind. Act.* of λυπέω. (*c*) Distinguish between θεῶν—θέων. τιμάν—τιμᾶν. ἄλλα—ἀλλά. βασίλεια—βασιλεία. ἐπαινος—ἐπαινός. ἰδοῦ—ἰδού. τινῶν—τίνων. φῶς—φώς. τρόχος—τροχός.

LATIN.

THURSDAY, SEPTEMBER 16TH:—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate:—(A) Horace, Epistles I., ep. xix, vss. 32–49.

2. Explain carefully the syntax of the following extracts:—(*a*) Magna coronari Olympia; 1,50. (*b*) Insanire putas sollemnia me; 1,101. (*c*) Non tu corpus eras sine pectore; 4,6. (*d*) Dignis ait esse paratus; 7,22. (*e*) Togae simulet textore Catonem; 19, 13.

3. Translate:—(B) Horace, Satires I., Sat. ix., vss. 35–60.

4. In ext. (B) explain:—(1) Respondere vadato. (2) Hic ades. (3 Valeo stare. (4) Magnum adjutorem posset qui ferre secundas.

5. Translate:—(C) Virgil, Georgics, Bk. I., vss. 160–175.

6. (*a*) Name the Greek authors, severally, whom Virgil imitated in his Eclogues, Georgics, and the Æneid. In which department of poetry was he most successful? (*b*) Give the Greek terms for:—tribula, buris, temo, jugum, and stiva.

7. Translate:—(D) Terence, Adelphi, Act. v., Sc. 1.

8. (*a*) Which is the correct form Aedepol or Edepol? Give reasons for your preference. Also explain the forms in ext. (D) :—satur, sis, dis ; and construe "nollem huc exitum." (*b*) Translate and explain the following extracts:—(1) Acta Ludis funebribus Æmili Paulli. (2) Modos fecit L. Flaccus Claudi tibijs sarranis. (3) Facta e Græca Menandru. (*c*) A short account of the Roman Comic poets and of their Greek models.

9. Translate:—(E) Tacitus, Annals Bk. I., chap. lxxvi.; and (F) Cicero, Select Letters, epist. cvi.

10. Parse, and write down the full forms of:—erepsemus, surrexe, rere, submosses, peccaro, siit, operiere, consolere, reprensum, insuerit, cedo sodes.

11. How do you explain the following forms of so-called adverbs:—qui, interea, ibi, statim, saltem, tenus, alias, ruri?

12. (*a*) Explain the use of the Genitive in such expressions as:—talentum auri; quis nostrum; id loci; gratia beneficii; avidus laudis; æger animi; voti damnatus. (*b*) Also of the Dative in such as:—bonis invident; neque cernitur ulli; magno usui nostris fuit; quid mihi Celsus agit?

GREEK AND LATIN PROSE COMPOSITION.

WEDNESDAY, SEPTEMBER 15TH:—AFTERNOON, 2 TO 5.

Examiner,.....REV. GEORGE CORNISH, LL.D.

(A) Translate into Greek:—

1. In the battle the Athenians fled away from the Lacedæmonian hoplites.

2. The enemy remained in the country three days, and then advanced ten stadia by the same road.

3. Great fear fell upon all the people because of the presence of the enemy in their territory, who were ravaging the best portion of it.

4. Socrates used to converse with young men about wisdom and moderation and teach them that they ought to obey the laws and practice virtue.

(B) Translate into Latin:

Then Criton, hearing this, gave a sign to the boy that stood near him; and the boy departing, and having stayed for some time, came back with the person that was to administer the poison, who brought it pounded in a cup. And Socrates, looking at the man, said, "Well, my friend, as you are knowing in these matters, what is to be done?" "Nothing," he said, "but after you have drunk it to walk about, until a heaviness comes on in your legs, and then to lie down; this is the manner in which you have to act." And at the same time he extended the cup to Socrates. And Socrates taking it—and, indeed, with great cheerfulness, neither trembling nor turning color, but as his manner was, looking sternly under his brows at the man—"What say you," he said, "to making a libation from this? may I do it or not?"

ANCIENT HISTORY.

THURSDAY, SEPTEMBER 16TH:—AFTERNOON, 2 TO 5.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. (*a*) What are the divisions of History? (*b*) Name the sources of History, mentioning the leading authorities in ancient history and geography. (*c*) Give the geographical position of ancient Media, Armenia, Parthia, Syria, Chersonesus (1) Taurica, (2) Thracica, and (3) Cimbrica, with modern names where you can.

2. To what family of the human race did the Carthaginians belong? Give a general account of the national characteristics and political institutions of the Carthaginians. In what ways do you suppose the position and interests of civilized nations in Western Europe would have been affected if Carthage had conquered Rome?

3. Give an account of the accession of Darius I., and of the leading events of his reign. What was the great principle of his policy in regard to the western nations?

4. (*a*) Name the earliest inhabitants of Greece, and give the legendary genealogy of the Hellenes. (*b*) Specify the most noticeable features of early Greek society as represented in the Homeric poems. (*c*) What causes tended to Greek unity? To what may their partial operation and ultimate failure be attributed?

5. What events and causes led to the establishment and overthrow of the supremacy of Athens?

6. When and under what circumstances was Greece reduced into the condition of a Roman Province?

7. (*a*) The leading races of ancient Italy. (*b*) The Etruscans;—their origin, and physical and intellectual characteristics. (*c*) What races offered the stoutest opposition to Rome in the course of her subjugation of Italy?

8. The leading events in the political career of Servius Tullius; Sp. Cassius; The Gracchi; Sulla; and Cicero.

ENGLISH LITERATURE.

FRIDAY, SEPTEMBER 17TH:—MORNING, 9 TO 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. What dialect was first spoken in England?

2. What languages contributed the principal elements of the English tongue?—Give a historical account of their introduction.

3. Which ages are those designated the dark and the middle ages?

4. Mention the names of the principal learned men of the Anglo-Saxon times, and give some account of the subject-matter of their several productions.

5. Give the dates of the four periods into which English History is divided.

6. Describe the peculiar character of Anglo-Saxon literature, and state the causes assigned for it.

7. Describe the system of Anglo-Saxon versification.

8. Give the names of the principal philosophical writers, and of the historians of the twelfth and thirteenth centuries.

9. Give the substance of the remarks on the origin of the Fabliaux and the romances of chivalry.

10. Describe the series of the Romances that relate to King Arthur and his Knights.

11. Give some account of the origin of the Old English Drama.

12. In the fifteenth century what was the condition of England in regard to literature, as compared with that of the chief States of the Continent of Europe?

13. How did the Reformation in England exert an influence upon the cultivation of literature?

14. Give a historical sketch of the English Drama in the sixteenth century.

15. Mention the chief names in the history of literature during the reign of Elizabeth.

16. How does it happen that the poetical art should be developed more quickly than other departments of literature?

17. Mention the names of the principal literary men, with notices of their works, in the reign of James the First.

FRENCH.

MONDAY, SEPTEMBER 20TH:—MORNING, 9 TO 12.

Examiner,.....P. J. DAREY, M.A., B.C.L.

1. Translate in English twenty three lines of *Andromaque*: Acte III. Scene IV. From *Où fuyez vous Madame?* to, *qu'à pleurer.*

2. State the rules to form the plural of compound nouns in French. Give examples and some exceptions?

3. In how many different ways do you translate the adjectives of dimension *high, long, wide?* Give examples.

4. Translate the following sentences: I know as much as you. How much does that book cost? It comes much to the same. You make much of that young man. So much for you. We admire him so much! Do you like wine much? Do you like much wine? So much the worse. So much for the word *much.*

5. Translate and explain the difference between the two sentences:
Je crains qu'il ne vienne pas.
Je crains qu'il ne vienne.

6. Translate into French:

Colombus at Barcelona.

The letter of Columbus to the Spanish monarchs, announcing his discovery had produced the greatest sensation at Court. The event it communicated was considered the most extraordinary of their prosperous reign. The sovereigns themselves were for a time dazzled and bewildered by this sudden and easy acquisition of a new empire, of indefinite extent and apparently boundless wealth; and their first idea was to secure it beyond the reach of question or competition. Shortly after his arrival in Seville,

Columbus received a letter from them, expressing their great delight, and requesting him to repair immediately to court, to concert plans for a second and more extensive expedition. As the summer was already advancing, the time favourable for a voyage, they desired him to make arrangements at Seville, or elsewhere, that might hasten the expedition, and to inform them, by the return of the courier what was necessary to be done on their part. This letter was addressed to him by the title of "Don Christopher Columbus, our Admiral of the Ocean Sea, and Viceroy and Governor of the Islands discovered in the Indes"; at the same time he was promised still further rewards. Columbus lost no time in complying with the commands of the sovereigns.

Washington Irving.

JUNIOR SCOTT EXHIBITION.

DRAWING.

Examiner,.....G. F. Armstrong, M.A., C.E.

1. Construct a rectangle that shall be equal in area to an equilateral triangle of 3 in. side.

2. Draw the curve of a semi-elliptical arch. Span 16 feet, and height 4 feet.

Scale $\frac{1}{2}'' = 1$ foot.

3. Project orthographically:—

A cube of 3·75 inches side, having two of its adjacent faces at 15° and 75° respectively to the vertical, when standing on a plane inclined at 30° to the horizontal plane.

4. Two circular slabs of stone, one 5 inches diameter and 1·75 inches thick, and the other 3·15 inches diameter and 1·25 inches thick, standing one on the other, when their circular faces are inclined at 40° to the horizontal plane.

Scales:—1, 3 and 4 half inch Protractor.

Note.—Neatness and accuracy are essential.
Lines of *construction* should be dotted.

SURVEYING.

Examiner,.....G. F. Armstrong, M.A., C.E.

1. Explain the method of supplying the omission of any two sides, not contiguous, in a traverse survey by means of a changed Meridian.

2. Describe the Circumferenter, and point out in what respects it differs from the Prismatic-compass.

3. How would you make an instrument read to 15″, by means of the Vernier?

4. What is the use of triangulation, and in what manner is it carried out? Illustrate by a diagram, how, when the measured base is unavoidably short, the sides of the principal triangle may be made rapidly to increase without admitting any ill-conditioned triangles.

HISTORY OF ENGLAND.

FRIDAY, SEPTEMBER 17th:—MORNING, 9 TO 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give an outline of the history of the events that led to the first meeting of the House of Commons, as Hume says, it may rightly be regarded.

2. When was the Statute of Mortmain passed, and what was its nature?

3. Give an outline of the history of the Conquest of Wales by Edward I?

4. Give an account of the dispute in regard to the succession to the Scottish Crown and the part taken by Edward in the case?

5. Give the History of the Confirmation of the Great Charter by Edward?

6. What were the grounds of the claim to the Crown of France that was advanced by Edward III.

7. What is the received story in regard to the institution of the Order of the Garter?

8. What was the character of Edward's conduct with relation to the Court of Rome?

9. When was the Statute of Provisors enacted and what was its nature and object?

10. Give some account of the battle of Bosworth—of the parties concerned in it—its consequences?

11. Give the substance of Hume's account of Sir Philip Sydney?

12. What was the evidence that established the guilt of Mary Queen of Scots in the trial by the Commissioners appointed by Elizabeth?

13. Give the substance of Hume's description of the character of James I?

14. Give a historical outline of the Court of Star Chamber.

15. Give a historical sketch of the trial and execution of the Earl of Stafford.

CHEMISTRY.

MONDAY, SEPTEMBER 20TH :—AFTERNOON, 2 to 5.

Examiner,.....B. J. HARRINGTON, B.A., Ph.D.

1. How is Potassium prepared? Give the formulæ of its principal salts.

2. What are the principal salts of Silver, and what their uses?

3. Describe the preparation of the metal Magnesium.

4. What is the percentage composition of Glauber's salt and common Alum?

5. What constitutes the difference between Cast and Wrought Iron, and how is the former converted into the latter?

6. What are the principal ores of Copper, and how is the metal obtained from them?

7. What are the properties of Thallium, and what the source from which it is usually derived?

8. By what tests may Bismuth and Antimony be detected when in solution?

9. Give the chemical formulæ of the following substances :—White-lead, Mineral Chameleon, Calomel, Blue Vitriol and Nitre.

10. How much Hydric Sulphate must be added to a solution containing 5 grammes of Baric Chloride in order to precipitate all the Barium?

SENIOR SCOTT EXHIBITION.

CONSTRUCTION.

Examiner.....G. F. ARMSTRONG, M.A., C.E.

1. How is pig-iron produced, and what are its characteristics when suitable for (*a*) foundry purposes, and (*b*) the manufacture of malleable iron.

2. What are Natural Cements, and upon what peculiarity of constitution does their hydraulic property depend?

3. What general appearances would enable you to tell whether a given piece of timber was "good" or "bad" as a structural material?

4. Upon what considerations would you base your decision as to the best form to be given to a sewer?

5. Describe fully the process of *tempering* and *moulding* in brick-manufacture.

6. What are "sewers of deposit?" Is it possible to render all sewers self-cleansing?

NOTE.—Answers should, as far as possible, be illustrated by diagrams or sketches.

SURVEYING, LEVELLING AND DRAWING.

Examiner.....G. F. Armstrong, M.A., C.E.

1. Show, by an example, how the lengths of two sides that have been omitted may be ascertained, in a needle-survey, by means of a changed meridian.

2. How is the Theodolite superior to the Sextant in measuring the angle between two places of different elevation ?

3. Mention some precautions that are necessary when working with the Spirit-level, in order to ensure correct results.

4. With what means of ascertaining differences of height expeditiously in mountainous districts are you acquainted ?

5. Point out the differences of construction between the Transit, Common and Everest's Theodolites.

6. Show the true shape of the section of a square wooden prism, a side of whose base is 2·25 inches and whose height is 4 inches, made by a plane entering at an angle of the top and emerging at the opposite basal angle.

Scale—$\frac{1}{2}''$ Protractor.

7. Draw on a scale of 1 inch to the foot, the isometrical projection of a box 4 feet square, 2 feet 3 inches high, and made of wood 3 inches thick.

8. Project perspectively; supposing the height of the eye of the spectator to be 6 feet and the picture distance 8 feet :—

Scale—$\frac{3}{4}''=1$ ft.

A cross having equal arms 5 feet long and 1-5 feet square, from the intersection of which rises an upright of the same scantling, and equal in height to the length of the arms. The cross is lying on the horizontal with the end of one of its arms parallel to the picture plane, and 6 feet on the left of the spectator.

ENGLISH GRAMMAR.

Friday, September 17th :—Afternoon, 2 to 5.

Examiner,.....Ven. Archdeacon Leach, D.C.L.

1. Write out a Synopsis of the declensions of Anglo-Saxon names.

2. Decline the pronouns "Tc," "Thu," "He :" and the demonstrative 'Se," Seo, "thæt."

3. Conjugate the verbs, "writan," "habban," "scealan."

4. Mention the different ways in which Anglo-Saxon secondary nouns were formed, and give examples.

5. Decline in each of the forms an Anglo-Saxon adjective.

6. Which are the different orders of Anglo-Saxon verbs, and how are they distinguished?

7. How are adjectives and adverbs ordinarily compared?

8. What peculiarities mark the use of the Anglo-Saxon relative?

9. Mention the inflections of the regular Anglo-Saxon verb that differ from those of the English verb and those they have in common.

10. Point out in the following phrases the peculiarities of construction: "Ne eart thu thæs cœsares freond:—eadige synd tha the nu wepath: calles his mægnes: synderlice hine Petrus and Jacobas and Andréas acsodon."

11. Give the substance of Bacon's Essay on Seditions and Troubles.

12. Give the substance of Trench's remarks on the subject of the changes that take place in the meaning of words and mention some of the examples given.

13. Give some examples of the process by which new words are formed from the names of persons.

14. Mention some of the causes that have led to the disuse of words

SUBJECT OF COMPOSITION.

The advantages of the knowledge of the French language.

ENGLISH HISTORY AND LITERATURE.

FRIDAY, SEPTEMBER 17TH:—AFTERNOON, 2 TO 5.

1. How does Hallam vindicate Henry IV.'s accession to the throne?

2. Mention the different measures, adopted at different periods, for the determination of Contested Elections.

3. Give the substance of Hallam's remarks on the subject of the lower clergy as members of Parliament.

4. Mention the principal causes of the preservation of learning during the Middle ages.

5. What instances of superstition are mentioned to show the "universal ignorance" that prevailed?

6. Give some instances of "enthusiastic risings."

7. Give the substance of the remarks on "the degradation of morals."

8. What is the description given of the life of literary men generally in the eighteenth century?

9. Give the substance of Johnson's remarks on the Hudibras of Butler.

10. Mention Johnson's reasons for his opinion that "poetical devotion cannot often please."

11. Which are the several parts of a poem, tragic or heroic, as described by Dryden?

12. Give the substance of what is said on the origin and character of the Tatler and the Spectator.

13. Give a short account of the life and death of Savage.

Subject of composition:—Causes of the decline of national greatness and prosperity.

ZOOLOGY.

MONDAY, SEPTEMBER 20TH:—MORNING, 9 TO 12.

Examiner,.....J. W. DAWSON, LL.D., F.R.S.

1. State the distinctive characters of the Porifera, and the nature of their functions.

2. Characterize the Tabulata, and state their affinities with modern corals.

3. Describe the anatomy of *Uraster*.

4. State the distinctive characters and geological distribution of *Spirifer*, *Productus*, and *Rhynconella*.

5. What are the Zoological and Geological relations of *Conularia*, *Pleurotomaria* and *Natica*.

6. What are the most important recent and fossil genera of Tetrabranchiate Cephalopoda.

7. State the subdivisions of the Entomostraca, and mention the fossil families and genera.

8. Describe *Serpula*.

9. Characterize the Ganoid fishes, with Canadian examples.

10. State what you know of the specimens exhibited.

CHRISTMAS EXAMINATIONS, 1875.

CLASSICS.

FIRST YEAR.

GREEK.—XENOPHON.—HELLENICS, BOOK I.

MONDAY, DECEMBER 13TH:—MORNING, 9 TO 12.

Examiner.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Ἀλκιβιάδης δὲ εἰπὼν καὶ τούτοις διώκειν αὐτὸν ἐξελομένοις τὰ μεγάλα ἱστία αὐτὸς ἐπλευσεν εἰς Πάριον· ἀθρόαι δὲ γενόμεναι αἱ νῆες ἅπασαι ἐν Παρίῳ ἔξ καὶ ὀγδοήκοντα τῆς ἐπιούσης νυκτὸς ἀνηγάγοντο, καὶ τῇ ἄλλῃ ἡμέρᾳ περὶ ἄριστον ὥραν ἦκον εἰς Προκόννησον. ἐκεῖ δ' ἐπύνθοντο ὅτι Μίνδαρος ἐν Κυζίκῳ εἴη καὶ Φαρνάβαζος μετὰ τοῦ πεζοῦ. ταύτην μὲν οὖν τὴν ἡμέραν αὐτοῦ ἔμειναν, τῇ δὲ ὑστεραίᾳ Ἀλκιβιάδης ἐκκλησίαν ποιήσας παρεκελεύετο αὐτοῖς ὅτι ἀνάγκη εἴη καὶ ναυμαχεῖν καὶ πεζομαχεῖν καὶ τειχομαχεῖν· Οὐ γὰρ ἔστιν, ἔφη, χρήματα ἡμῖν, τοῖς δὲ πολεμίοις ἀφθονα παρὰ βασιλέως. τῇ δὲ προτεραίᾳ, ἐπειδὴ ὡρμίσαντο, τὰ πλοῖα πάντα καὶ τὰ μικρὰ συνήθροισε παρ' ἑαυτόν, ὅπως μηδεὶς ἐξαγγείλαι τοῖς πολεμίοις τὸ πλῆθος τῶν νεῶν.

(B) Λακεδαιμόνιοι δὲ ὀλίγῳ ὕστερον αἱροῦσι Δελφίνιον καὶ Πιόνα. οἱ δὲ ἐν οἴκῳ Ἀθηναῖοι, ἐπειδὴ ἠγγέλθη ἡ ναυμαχία, χαλεπῶς εἶχον τῷ Ἀλκιβιάδῃ, οἰόμενοι δι' ἀμέλειάν τε καὶ ἀκράτειαν ἀπολωλεκέναι τὰς ναῦς, καὶ στρατηγοὺς εἵλοντο ἄλλους δέκα, Κόνωνα, Διομέδοντα, Λέοντα, Περικλέα, Ἐρασινίδην, Ἀριστοκράτη, Ἀρχέστρατον, Πρωτόμαχον, Θράσυλλον, Ἀριστογένη. Ἀλκιβιάδης μὲν οὖν πονήρως καὶ ἐν τῇ στρατιᾷ φερόμενος, λαβὼν τριήρη μίαν ἀπέπλευσεν εἰς Χερρόνησον εἰς τὰ ἑαυτοῦ τείχη. μετὰ δὲ ταῦτα Κόνων ἐκ τῆς Ἄνδρου σὺν αἷς εἶχε ναυσὶν εἰκοσι ψηφισαμένων Ἀθηναίων εἰς Σάμον ἔπλευσεν ἐπὶ τὸ ναυτικόν. ἀντὶ δὲ Κόνωνος εἰς Ἄνδρον ἔπεμψαν Φανοσθένην, τέτταρας ναῦς ἔχοντα. οὗτος περιτυχὼν ὀνοΐν τριήροιν Θουρίαιν ἔλαβεν αὐτοῖς ἀνδράσι· καὶ τοὺς μὲν αἰχμαλώτους ἅπαντας ἔδησαν Ἀθηναῖοι, τὸν δὲ ἄρχοντα αὐτῶν Δωριέα, ὄντα μὲν Ῥόδιον, πάλαι δὲ φυγάδα ἐξ Ἀθηνῶν καὶ Ῥόδου ὑπὸ Ἀθηναίων κατεψηφισμένων αὐτοῦ θάνατον καὶ τῶν ἐκείνου συγγενῶν, πολιτεύοντα παρ' αὐτοῖς, ἐλεήσαντες ἀφεῖσαν οὐδὲ χρήματα πραξάμενοι.

2. Explain (1) the import of *ἀθρόαι* and *ἅπασαι*. (2) The distinction in the use of the cases in *τῆς ἐπιούσης νυκτός*, and *τῇ ἄλλῃ ἡμέρᾳ*, and *ταύτην τὴν ἡμέραν*. (3) Give a short account of the generals enumerated in ext. (B). (4) State what you know about Dorieus. What were the probable grounds for the exceptional treatment of him here recorded? (5) Name the geographical situation of the places mentioned in the above extt.

3. Explain carefully the grammatical construction of:—(*a*) *περιτυχὼν ὄνοιν τριήροιν ἔλαβεν αὐτοῖς ἀνδράσιν.* (*b*) *ἵππων εὐπορήσαντες.* (*c*) *τοῦ χωρίου ἐπιμελεῖσθαι.* (*d*) *τοῖς ὅρκοις οὐκ ἐτύγχανε παρών.* (*e*) *τριάκοντα μνᾶς ἑκάστῃ τῇ νηῒ τοῦ μηνὸς διδόναι.*

4. Parse carefully the following:—*ἐξαγγείλαι, ἐξαγγεῖλαι, πεπονθέναι, ἐροῦντα, ἀφεῖσαν, προπιών, ἐπεσταλκέναι, ἠσεβήκει, ἀνήχθη, ἀπεσώθη.*

5. Write short explanatory notes on:—*μνᾶ, ὀβολός, δραχμή, περίοικοι, ἐπιβάτης, ἐφορεύοντος, ἁρμοστής, νεοὰμῶδες.*

6. Give the exact derivation and meaning of the following words:—*τριήρης, ἀκράτειαν, ἀμηχανίας, ἀκροβολισμοὺς καὶ προσβολάς, πρηστῆρος, ἀτέλειαν, ξυνωρίς, προνομήν, δείλης.*

7. Name the dialect of the following ext.; turn it into Attic; and translate, noticing the variants *κᾶλα* and *καλά*:—*Ἔρρει τὰ κᾶλα. Μίνδαρος ἀπεσσύα. πεινῶντι τῶνδρες. ἀπορίομες τί χρὴ δρᾶν.*

8. (*a*) Decline the following:—*κάλλος, κριτής, ὄρνις, λαγώς, ὁδούς, μήτηρ*, and *ὁ μέγας ἀνήρ*. (*b*) Write down the Comparative and Superlative of the following:—*μέγας, πολύς, ἡδύς, πρέσβυς*. (*c*) Write down the principal Tenses (*1st Sing. Indicative*), of:—*τήμνω, δίδωμι, φεύγω, ἐλαύνω, τίκτω, φέρω*. (*d*) State and illustrate the distinction between *cognate* and *derivative* words.

SECOND YEAR.

GREEK.—EURIPIDES.—MEDEA.

MONDAY, DECEMBER 13TH:—MORNING, 9 TO 12.

Examiner.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) ΜΗ. *ἰώ,*
δύστανος ἐγὼ μελέα τε πόνων,
ἰώ μοί μοι, πῶς ἂν ὀλοίμαν.
ΤΡ. *τόδ' ἐκεῖνο, φίλοι παῖδες· μήτηρ*
κινεῖ κραδίαν, κινεῖ δὲ χόλον.

σπεύσατε θᾶσσον δώματος εἴσω,
καὶ μὴ πελάσητ' ὄμματος ἐγγὺς,
μηδὲ προσέλθητ', ἀλλὰ φυλάσσεσθ'
ἀγριον ἦθος στυγεράν τε φύσιν
φρενὸς αὐθάδους.
ἴτε νυν χωρεῖθ' ὡς τάχος εἴσω.
δῆλον δ' ἀρχῆς ἐξαιρόμενον
νέφος οἰμωγῆς ὡς τάχ' ἀνάψει
μείζονι θυμῷ· τί ποτ' ἐργάσεται
μεγαλόσπλαγχνος δυσκατάπαυστος
ψυχὴ δηχθεῖσα κακοῖσιν;
ΜΗ. αἰαῖ,
ἔπαθον τλάμων ἔπαθον μεγάλων
ἀξι' ὀδυρμῶν· ὦ κατάρατοι
παῖδες ὄλοισθε στυγερᾶς ματρὸς
ξὺν πατρὶ, καὶ πᾶς ἔρροι.

(B)

ΑΓ. τί φῄς; σαφῶς μοι σὰς φράσον δυσθυμίας.
ΜΗ. ἀδικεῖ μ' Ἰάσων οὐδὲν ἐξ ἐμοῦ παθών.
ΑΓ. τί χρῆμα δράσας; φράζε μοί σαφέστερον.
ΜΗ. γυναῖκ' ἐφ' ἡμῖν δεσπότιν δόμων ἔχει.
ΑΓ. ἦ γὰρ τετόλμηκ' ἔργον αἰσχιστον τόδε;
ΜΗ. σάφ' ἴσθ'· ἀτιμοι δ' ἐσμὲν οἱ πρὸ τοῦ φίλοι.
ΑΓ. πότερον ἐρασθεὶς ἢ σὸν ἐχθαίρων λέχος;
ΜΗ. μέγαν γ' ἔρωτα· πιστὸς οὐκ ἔφυ φίλοις.
ΑΓ. ἴτω νυν, εἴπερ ὡς λέγεις ἐστὶν κακός.
ΜΗ. ἀνδρῶν τυράννων κῆδος ἡράσθη λαβεῖν.
ΑΓ. δίδωσι δ' αὐτῷ τίς; πέραινέ μοι λόγον.
ΜΗ. Κρέων, ὃς ἄρχει τῆσδε γῆς Κορινθίας.
ΑΓ. ξυγγνωστὰ μεντ' ἂμ' ἦν σε λυπεῖσθαι, γύναι.
ΜΗ. ὄλωλα· καὶ πρός γ' ἐξελαύνομαι χθονός.
ΑΓ. πρὸς τοῦ; τόδ' ἄλλο καινὸν αὖ λέγεις κακόν.
ΜΗ. Κρέων μ' ἐλαύνει φυγάδα γῆς Κορινθίας.
ΑΓ. ἐᾷ δ' Ἰάσων; οὐδὲ ταῦτ' ἐπῄνεσα.

(C)

νῦν οὖν ἐπαινῶ, σωφρονεῖν τέ μοι δοκεῖς
κῆδος τὸδ' ἡμῖν προσλαβὼν, ἐγὼ δ' ἄφρων,
ἦ χρῆν μετεῖναι τῶνδε τῶν βουλευμάτων
καὶ ξυμπεραίνειν καὶ παρεστάναι λέχει,
νύμφην τε κηδεύουσαν ἡδεσθαι σέθεν.
ἀλλ' ἐσμὲν οἷόν ἐσμεν, οὐκ ἐρῶ κακὸν,
γυναῖκες· οὔκουν χρή σ' ὁμοιοῦσθαι κακοῖς,
οὐδ' ἀντιτείνειν νήπι' ἀντὶ νηπίων.
παριέμεσθα, καί φαμεν κακῶς φρονεῖν
τότ', ἀλλ' ἀμεινον νῦν βεβούλευμαι τάδε.

2. (*a*) Discuss the grammatical construction, and the interpretation of vss. 11–15 of ext. (A). (*b*) Write down the Doric forms, with

their equivalents in Attic, of ext. (A). (*c*) Name the metre, and give the scale, of the last four vss. of extt. (A) and (B), severally. Scan these verses.

3. Explain the use of the oblique cases in the following extracts, severally:—(*a*) *παλαιὰ λείπεται κηδευμάτων.* (*b*) *μέγαν ἔρωτα.* (*c*) *τὸ παλαιὸν ὀλβιοι.* (*d*) *ὦ δυσταλαινα τῆς ἐμῆς αὐθαδίας.* (*e*) *ᾗ χρῆν μετεῖναι τῶνδε τῶν βουλευμάτων.*

4. Parse the following words:—*του, σέθεν, σφ', ἐλᾶν, μολόντας, ἑδρας, τεύξει, ἀνέπτα, χρῆν, μετεύξει, δεδόκησαι.*

5. Give the meaning and derivation of:—*ζηλωτόν, ἁβρῶς, καλλίνικοι, ἑκατι, στόμαργον, δυσίατος, δεξιᾶς, κῆδος.*

6. Resolve the following forms:—*ἐγῶδα, χᾠ', ἀνήρ, ταὐτᾧ, μῶν, κἂν, κἀν, κᾆτα.*

7. Write explanatory notes on:—(1) *ἀμφὶ Πειρήνης.* (2) *ἀμφιπύλου μελάθρου.* (3) *Θέμιν εὐκταίαν.* (4) *τοῖς Σισυφείοις.* (5) *ἀκροισι λαίφους κρασπέδοις ὑπεκδραμεῖν.* (6) *ξένοις πέμπειν ξύμβολα.* (7) *ἱερᾶς χώρας ἀπορθήτου.* (8) *ἐνθα ἐννέα Πιερίδας Μούσας λέγουσι ξανθὰν Ἁρμονίαν φυτεῦσαι.*

8. (*a*) Decline:—*ναῦς, κάλως, πατήρ, γέλως.* (*b*) Write down the Comparative and Superlative of:—*ταχύς, πιστός, αἰσχρός, δυνατός.* (*c*) What cases do the following verbs, severally, govern:—*χράομαι, ἀκούω, βουλεύω, κρίνω?*

THIRD YEAR.

GREEK.—DEMOSTHENES.—THE OLYNTHIACS.

WEDNESDAY, DECEMBER 15TH:—MORNING, 9 TO 12.

Examiner.....REV. GEORGE CORNSIH, LL.D.

Translate:—

(A) Τί δῆ τὸ πάντων αἴτιον τούτων, καὶ τί δή ποτε ἅπαντ' εἶχε καλῶς τότε καὶ νῦν οὐκ ὀρθῶς; ὅτι τὸ μὲν πρότερον στρατεύεσθαι τολμῶν αὐτὸς ὁ δῆμος δεσπότης τῶν πολιτευομένων ἦν καὶ κύριος αὐτὸς ἁπάντων τῶν ἀγαθῶν, καὶ ἀγαπητὸν ἦν παρὰ τοῦ δήμου τῶν ἄλλων ἑκάστῳ καὶ τιμῆς καὶ ἀγαθοῦ τινος μεταλαβεῖν· νῦν δὲ τοὐναντίον κύριοι μὲν οἱ πολιτευόμενοι τῶν ἀγαθῶν, καὶ διὰ τούτων ἅπαντα πράττεται, ὑμεῖς δ' ὁ δῆμος ἐκνενευρισμένοι καί περιῃρημένοι χρήματα καὶ συμμάχους ἐν ὑπηρέτου καὶ προσθήκης μέρει γεγένησθε, ἀγαπῶντες ἐὰν μεταδιδῶσι θεωρικῶν ὑμῖν ἢ βοηδρόμια πέμψωσιν οὗτοι, καὶ τὸ πάντων ἀνδρειότατον, τῶν ὑμετέρων αὐτῶν χάριν προσοφείλετε. οἱ δ' ἐν αὐτῇ τῇ πόλει καθείρξαντες ὑμᾶς ἐπάγουσιν ἐπὶ ταῦτα καὶ τιθασεύουσι χειροήθεις ποιοῦντες. ἔστι δ' οὐδέποτ', οἶμαι, μέγα καὶ νεανικὸν φρόνημα λαβεῖν

μικρὰ καὶ φαῦλα πράττοντας· ὁποῖ' ἄττα γὰρ ἂν τὰ ἐπιτηδεύματα τῶν ἀνθρώπων ᾖ, τοιοῦτον ἀνάγκη καὶ τὸ φρόνημα ἔχειν.

(B) *Εἰ δέ τις ὑμῶν, ὦ ἀνδρες Ἀθηναῖοι, τὸν Φίλιππον εὐτυχοῦντα ὁρῶν ταύτῃ φοβερὸν προσπολεμῆσαι νομίζει, σώφρονος μὲν ἀνθρώπου λογισμῷ χρῆται· μεγάλη γὰρ ῥοπή, μᾶλλον δὲ ὅλον ἡ τύχη παρὰ πάντ' ἐστὶ τὰ τῶν ἀνθρώπων πράγματα· οὐ μὴν ἀλλ' ἐγωγε, εἰ τις αἱρεσίν μοι δοίη, τὴν τῆς ἡμετέρας πόλεως τύχην ἂν ἑλοίμην, ἐθελόντων ἃ προσήκει ποιεῖν ὑμῶν αὐτῶν καὶ κατὰ μικρὸν, ἢ τὴν ἐκείνου· πολὺ γὰρ πλείους ἀφορμὰς εἰς τὸ τὴν παρὰ τῶν θεῶν εὔνοιαν ἔχειν ὁρῶ ὑμῖν ἐνούσας ἢ 'κείνῳ. ἀλλ', οἶμαι, καθήμεθα οὐδὲν ποιοῦντες· οὐκ ἐνι δ' αὐτὸν ἀργοῦντα οὐδὲ τοῖς φίλοις ἐπιτάττειν ὑπὲρ αὑτοῦ τι ποιεῖν, μή τί γε δὴ τοῖς θεοῖς. οὐ δὴ θαυμαστόν ἐστιν, εἰ στρατευόμενος καὶ πονῶν ἐκεῖνος αὐτὸς καὶ παρὼν ἐφ' ἅπασι καὶ μηδένα καιρὸν μηδ' ὥραν παραλείπων ἡμῶν μελλόντων καὶ ψηφιζομένων καὶ πυνθανομένων περιγίγνεται.*

(C) *Ἄξιον δ' ἐνθυμηθῆναι καὶ λογίσασθαι τὰ πράγματα ἐν οἷ' καθέστηκε νυνὶ τὰ Φιλίππου. οὔτε γὰρ, ὡς δοκεῖ καὶ φήσειέ τις ἂν μὴ σκοπῶν ἀκριβῶς, εὐτρεπῶς οὐδ' ὡς ἂν κάλλιστ' αὐτῷ τὰ παρόντ' ἔχει, οὔτ' ἂν ἐξῆνεγκε τὸν πόλεμόν ποτε τοῦτον ἐκεῖνος, εἰ πολεμεῖν ᾤήθη δεήσειν αὐτὸν, ἀλλ' ὡς ἐπιὼν ἅπαντα τότε ἤλπιζε τὰ πράγματα ἀναιρήσεσθαι, κᾆτα διέψευσται. τοῦτο δὴ πρῶτον αὐτὸν ταράττει παρὰ γνώμην γεγονὸς καὶ πολλὴν ἀθυμίαν αὐτῷ παρέχει, εἶτα τὰ τῶν Θετταλῶν. ταῦτα γὰρ ἄπιστα μὲν ἦν δήπου φύσει καὶ ἀεὶ πᾶσιν ἀνθρώποις, κομιδῇ δ', ὥσπερ ἦν, καὶ ἔστι νῦν τούτῳ. καὶ γὰρ Παγασὰς ἀπαιτεῖν αὐτόν εἰσιν ἐψηφισμένοι καὶ Μαγνησίαν κεκωλύκασι τειχίζειν, ἤκουον δ' ἐγωγέ τινων ὡς οὐδὲ τοὺς λιμένας καὶ τὰς ἀγορὰς ἔτι δώσειν αὐτῷ καρποῦσθαι· τὰ γὰρ κοινὰ τὰ Θετταλῶν ἀπὸ τούτων δέοι διοικεῖν, οὐ Φίλιππον λαμβάνειν. εἰ δὲ τούτων ἀποστερηθήσεται τῶν χρημάτων, εἰς στενὸν κομιδῇ τὰ τῆς τροφῆς τοῖς ξένοις αὐτῷ καταστήσεται.*

2. Explain as exactly as you can the import of the following particles, or combinations of particles:—*δή. δήποτε. μή τί γε δέ. εἴ πὲρ πότε. οὐ μὴν ἀλλά. δήπου. καὶ γε. καί δή. ἄρα γέ.*

3. Explain the construction of the following phrases in the above extt.:—(*a*) *τῶν ἄλλων ἑκάστῳ καὶ τιμῆς, κ.τ.λ.* (*b*) *τοὐναντίον.* (*c*) *τῶν ὑμετέρων αὐτῶν.* (*d*) *φοβερὸν προσπολεμῆσαι.* (*e*) *εἰς στενὸν * * * * * αὐτῷ καταστήσεται.*

4. (*a*) Explain the literal signification of:—*ἐκνενευρισμένοι. προσθήκης. τιθασεύουσι χειροήθεις. ἀφορμάς. ὑποστείλασθαι. πεφηνάκικεν. ἀνεχαίτισε. συγκεκροτημένοι. προπέποται.* (*b*) Give the various readings for *Βοηδρόμια* and *ἀνδρειότατον* in ext. (A), and discuss their meaning and value. (*c*) *τοῖς ἀσθενοῦσι * * σιτίοις διδομένοις*:—how do you construe the article, and why?

5. Write short explanatory notes on:—(1) *τις ἔξω τῆς ἡλικίας.* (2) *εἰσεφέρετε κατὰ συμμορίας.* (3) *νομοθέτας καθίσατε.* (4) *τὰ θεωρικά.* (5) *εὐθυναι.* (6) *προβούλευμα, ψήφισμα, νόμος.* (7) *λειτουργίαι.* (8) *τάλαντα ἑξήκοντα.*

6. Parse the following verbs, pointing out any peculiarities of formation:—*περιηρημένοι, ηὔξηται, ἀνηλώκαμεν, ἠνώχλει, ἐπανέντας, ὑπηργμένων, πεφηνέναι, συζῇ, συστῇ, συμπλακῇ, ἡφίετε, γραφῇ.*

7. (*a*) Define, and state the difference in meaning between, *λόγον τυχεῖν* and *λόγον διδόναι. θεῖναι νόμους* and *θέσθαι νόμους. γράφειν παράνομα* and *γράφεσθαι παρανόμων. εὐθύνας ἀπαιτεῖν* and *εὐθύνας ὑπέχειν. εὐθύνας ὀφλεῖν* and *εὐθύνας ἀποφεύγειν.* (*b*) Distinguish between *γράφῃ* and *γραφῇ. οἰκοὶ* and *οἶκοι. δεινὰ* and *δεῖνα. κᾰ́τα* and *κατά. ἀγων* and *ἀγών. πολέμησαι, πολεμήσαι* and *πολεμῆσαι.*

8. (*a*) *οὐ βάρβαρος*; (Philip).—Was Demosthenes right in this imputation? Give a short account of the reign of Philip, with dates. What was the end of Demosthenes?

FIRST YEAR.

LATIN.—VIRGIL.—ÆNEID, BOOK VI.

MONDAY, DECEMBER 13TH:—AFTERNOON 2 TO 5.

Examiner.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Phoebe, gravis Troiae semper miserate labores,
Dardana qui Paridis direxti tela manusque
Corpus in Aeacidae, magnas obeuntia terras
Tot maria intravi *duce te* penitusque repostas
Massylum gentis praetentaque *Syrtibus* arva
Iam tandem Italiae *fugientis* prendimus oras;
Hac Troiana tenus fuerit Fortuna secuta.
Vos quoque Pergameae iam fas est parcere genti,
Dique deaeque omnes, quibus obstitit Ilium et ingens
Gloria Dardaniae. Tuque, o sanctissima vates,
Praescia *venturi*, da, non indebita posco
Regna *meis fatis*, Latio considere Teucros
Errantisque deos agitataque numina Troiae.

(B) Haec ubi dicta dedit Phoebi longaeva sacerdos:
Sed iam age, carpe viam et susceptum perfice munus;
Acceleremus, ait; Cyclopum educta caminis
Moenia conspicio atque *adverso fornice* portas,
Haec ubi nos *praecepta* iubent deponere *dona*.
Dixerat, et pariter gressi per opaca viarum,
Corripiunt spatium medium, foribusque propinquant.
Occupat Aeneas aditum, corpusque recenti
Spargit aqua, ramumque adverso in limine figit.

(C) Illae autem, paribus quas fulgere cernis in armis,
Concordes animae nunc et dum nocte premuntur,
Heu quantum inter se bellum, si lumina vitae
Attigerint, quantas acies stragemque ciebunt!
Aggeribus socer Alpinis atque arce Monoeci
Descendens, gener adversis instructus Eois.
Ne, pueri, ne tanta animis adsuescite bella,
Neu patriae validas in viscera vertite viris;
Tuque prior, tu parce, genus qui ducis Olympo,
Proiice tela manu, sanguis meus!—
Ille triumphata Capitolia ad alta Corintho
Victor aget currum, caesis insignis Achivis.
Eruet ille Argos Agamemnoniasque Mycenas,
Ipsumque Aeaciden, genus armipotentis Achilli,
Ultus avos Troiae, templa et temerata Minervae.

2. Explain the historical or legendary references of Ext. (C)., and give the geographical positions of the places mentioned.

3. (*a*) Name the cases of the several words in italics in the above extracts, giving reasons for your statements. (*b*) Give the meaning of vs. 7, ext. (C), with a different construction. (*c*) What class of nouns form their *Acc. Plu.* properly in—*is*? Show the quantity of this suffix, and explain its formation.

4. How do you explain the following:—(1) quam sedem somnia *volgo* tenere ferunt. (2) Ancora *funiabat* navis. (3) major *videri*. (4) non *inferiora* secutus. (5) *si possit excussisse* deum. (6) fusus *humi*. (7) torva *tuentem animum*. (8) in tantum *spe* tollet.

5. (*a*) Parse (giving the first Sing. Present, Perfect and Future Indicative, of each,) the following verbs:—procubuisti, venere, fare, praeterlabere, fungar, cucurrit, prendimus, oraveris, decerpserit, figit, texit. (*b*) Write the *Present Infinitive* of the following:—miserate, fuso, defuncta, repostos, excussa, adorti, lapsura, districti.

6. Write explanatory notes on:—(1) *fixit* leges atque *refixit*. (2) cum *tumulum* praeterlabere *recentem*. (3) *spoliis opimis*. (4) mater *turrita*, (5) tua *postuma* proles. (6) *Phlegyas* miserrimus omnis admonet. (7) gaudet *cognomine terra—terrae*. (8) *Marpesia* cautes.

7. (*a*) Show the component parts of the following words, and give their meaning:—seclusum, securos, sublimis, hactenus, inmanis, ambages, adversus, cognomine, exsomnis, incana. (*b*) Note words in English either *cognate* with or *derived* from any of the above.

8. (*a*) Write down the name and scale of the metre used by Virgil, and scan the first four vss. of ext. (C). (*b*) Decline:—comes, senex, idem, iste. Compare:—miser, vetus, similis, nequam. (*c*) What cases do the following severally govern?—coram, pro, tenus, sub, pudet, decet.

SECOND YEAR.

LATIN.—HORACE.—EPISTLES, BOOK I.

MONDAY, DECEMBER 13TH:—AFTERNOON, 2 TO 5.

Examiner.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Septimius Claudi, nimirum intelligit unus,
Quanti me facias. Nam quum rogat et prece cogit,
Scilicet, ut tibi se laudare et tradere coner,
Dignum mente domoque legentis honesta Neronis,
Munere quum fungi propioris censet amici,
Quid possim videt ac novit me valdius ipso.
Multa quidem dixi, cur excusatus abirem:
Sed timui, mea ne finxisse minora putarer,
Dissimulator opis propriae, mihi commodus uni.
Sic ego, maioris fugiens opprobria culpae,
Frontis ad urbanae descendi praemia. Quodsi
Depositum laudas ob amici iussa pudorem,
Scribe tui gregis hunc, et fortem crede bonumque.

(B) Coram rege sua de paupertate tacentes
Plus poscente ferent. Distat, sumasne pudenter,
An rapias. Atqui rerum caput hoc erat, hic fons.
"Indotata mihi soror est, paupercula mater
"Et fundus nec vendibilis nec pascere firmus,"
Qui dicit, clamat: 'Victum date!' Succinit alter:
"Et mihi dividuo findetur munere quadra."
Sed tacitus pasci si posset corvus, haberet
Plus dapis, et rixae multo minus invidiaeque.
Brundisium comes aut Surrentum ductus amoenum,
Qui queritur salebras et acerbum frigus et imbres,
Aut cistam effractam et subducta viatica plorat,
Nota refert meretricis acumina, saepe catellam
Saepe periscelidem raptam sibi flentis, uti mox
Nulla fides damnis verisque doloribus adsit.
Nec semel irrisus triviis attollere curat
Fracto crure planum; licet illi plurima manet
Lacrima, per sanctum iuratus dicat Osirim:
"Credite, non ludo; crudeles, tollite claudum!"
"Quaere peregrinum," vicinia rauca reclamat.

2. Write short explanatory notes (grammatical) on the following, illustrating from the Greek where you can:—(*a*) Fruges *consumere* nati. (*b*) Reddes *dulce loqui*. (*c*) Scribe *tui gregis*. (*d*) Liber *mihi* non erit unquam. (*e*) Bella *tibi* pugnata dicat. (*f*) Regia *Sardes*. (*g*) Natus moriensque *fefel'it*. Cæsaris *genibus* minor. (*h*) Si curas esse quod *audis*. (*i*) Domini *deduxit* febres.

3. Construe the words in italics in:—(*a*) *Nodosa corpus* nolis prohibere *cheragra*. (*b*) Quo *mihi fortunam* si non conceditur uti? (*c*) *Cui* placet alterius sua nimirum est *odio* sors. (*d*) *Dignis* ait esse *paratus*. (*e*) Nec *verbo* parcius absens. (*f*) Clarus *causis agendis*. (g) Detulerit fasces *indigno* detrahet idem. (*h*) Miscebis sacra *profanis*.

4. Explain the force and formation of the following:—Furtim, tenus, sodes, atqui, prope, simul, quodsi, pol, cur, quare, scilicet, nimirum.

5. Explain the meaning, giving the etymology, of:—Catellam, periscelidem, chlamydem, personam, penus, frugi, lamna, deversoria, peregre, incolumi.

6. Explain the references in the following:—(1) Donatum jam rude. (2) Extrema arena. (3) Invicti Glyconis. (4) Conducere publica. (5) Alcinoi Juventus. (6) Tragica ampullatur in arte. (7) Pluribus umbris. (8) Caerite cera.

7. Parse the following:—Detulerit, utere, mirabere, momorderit, contuderit, intonsum, cessatum, subisti, Ulixei, Ithace, Caerite, periere.

8. (*a*) Write down the *Gen. Sing.* and *Plu.* of:—Pulvis, pugnax, sodalis, frux, respublica. (*b*) Decline:— glomus, penus, creber, excors. (*c*):— Give the dimunitives of:—corpus, asinus, canis, catena, mater.

9. Translate into Latin:—When I came to the foot of the hill, I met with a very aged man, who asked me what I was and whither bound. I told him that I was a pilgrim going to the celestial city. Then said the old man, "Thou lookest like an honest fellow, wilt thou be content to dwell with me, for the wages that I shall give thee? Then I asked him his name, and where he dwelt. He said his name was Adam the first, and that he dwelt in the town of Deceit. I asked him then what was his work, and what the wages that he would give. He told me that his work was many delights, and his wages, that I should be his heir at last.

THIRD YEAR.

LATIN.—JUVENAL.—SATIRES VIII. AND X.

WEDNESDAY, DECEMBER 15TH:—AFTERNOON, 2 TO 5.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Paullus vel Cossus vel Drusus moribus esto;
Hos ante effigies majorum pone tuorum;
Præcedant ipsas illi te Consule virgas.
Prima mihi debes animi bona: sanctus haberi
Justitiæque tenax factis dictisque mereris,
Agnosco procerem. Salve, Gætulice, seu tu
Silanus, quocunque alio de sanguine, rarus

Civis et egregius patriæ contingis ovanti.
Exclamare libet populus quod clamat Osiri
Invento. Quis enim generosum dixerit hunc qui
Indignus genere et præclaro nomine tantum
Insignis? Nanum cujusdam Atlanta vocamus,
Æthiopem cygnum, pravam extortamque puellam
Europen; canibus pigris scabieque vetusta
Levibus et siccæ lambentibus ora lucernæ
Nomen erit pardus, tigris, leo, si quid adhuc est
Quod fremat in terris violentius. Ergo cavebis
Et metues, ne tu sis Creticus aut Camerinus.

(B) Interea dum lanatas torvumque juvencum
More Numæ cædit Jovis ante altaria, jurat
Solam Eponam et facies olida ad præsepia pictas.
Sed quum pervigiles placet instaurare popinas,
Obvius assiduo Syrophœnix udus amomo
Currit, Idumææ Syrophœnix incola portæ,
Hospitis affectu dominum regemque salutat,
Et cum venali Cyane succincta lagena.

(C) Eloquium ac famam Demosthenis aut Ciceronis
Incipit optare et totis Quinquatribus optat,
Quisquis adhuc uno partam colit asse Minervam,
Quem sequitur custos angustæ vernula capsæ.
Eloquio sed uterque perit orator; utrumque
Largus et exundans leto dedit ingenii fons.
Ingenio manus est et cervix cæsa; nec unquam
Sanguine causidici maduerunt rostra pusilli.
"O fortunatam natam me Consule Romam!"
Antoni gladios potuit contemnere, si sic
Omnia dixisset. Ridenda poemata malo,
Quam te conspicuæ, divina Philippica, famæ,
Volveris a prima quæ proxima. Sævus et illum
Exitus eripuit, quem mirabantur Athenæ
Torrentem et pleni moderantem fræna theatri.
Dis ille adversis genitus fatoque sinistro,
Quem pater, ardentis massæ fuligine lippus,
A carbone et forcipibus gladiosque parante
Incude et luteo Vulcano ad rhetora misit.

2. (*a*) In the above extt. the following variants occur:—*sic* Creticus; *robum* juvencum; *parcam* Minervam.—Translate and explain them. (*b*) Point out in what respects the reference to Demosthenes in Ext. (C) is depreciatory and exaggerated. Cite other instances of the same defect. To what would you attribute it? (*c*) Idumææ portæ.—How do you explain this?

3. Explain the construction of:—(*a*) Longo sanguine censeri. (*b*) Humeros—humero—carentem. (*c*) Tamquam feceris ipse aliquid * * ut te conciperet quæ sanguine fulget Iuli. (*d*) Dignus morte perit. (*e*) Vacuis exsucta medullis. (*f*) Maturus bello Armeniae Syriæque tuendis amnibus. (*g*) Repulsa—repulsâ—repulso—nec minus excanduit.

4. Discuss the various explanations of the following extt., and point out which are preferable:—(*a*) Usque ad *delicias* votorum. (*b*) Animam exhalasset *opimam*. (*c*) *Madidis* cantat quæ Sostratus *alis*. (*d*) Mitt *ostia*. (*e*) Referebant *altis* navibus. (*f*) Multa *contingere virga*.

5. Write short explanatory notes on the following historical references:—(*a*) Cecropides. (*b*) Phalaris. (*c*) Sacrilegus Verres. (*d*) Citharœdo Principe. (*e*) Senonum minores. (*f*) Sejanus ducitur unco. (*g*) Ducem luscum. (*h*) Epota flumina Medo prandente.

6. What customs are referred to in?—(*a*) Decies centena dabuntur. (*b*) Dextra computat annos. (*c*) Quot nunciet horas. (*d*) Stigmate dignum. (*e*) Totis Quinquatribus. (*f*) Quos sportula fecit amicos. (*g*) Frangenda imagine.

7. Derive, and define the meaning of:—Induperator, pusillus, stemmata, nanus, conchylia, procerem, generosum, nobilis, viduas, cerdoni, mirmillonis, Sarrana.

8. Show the various ways of expressing in Latin:—(1) *He died four years after I saw him.* (2) *He came for the purpose of seeing the city.* (3) *We may live free from care.* (*b*) Also show how difference in quantity gives difference of meaning in the following, respectively:—perit, luteo, manus, securis, severis, refert, vires. (*c*) Conjugate the *Imperfect Subjunct.* of abeo, fero, nolo, prosum.

MATHEMATICS AND NATURAL PHILOSOPHY.

FIRST YEAR.

EUCLID—ARITHMETIC.

WEDNESDAY, DEC. 15TH:—MORNING, 9 TO 12.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Divide a right line so that the rectangle under the whole and one part shall be equal to the square of the other.

a. Prove that the last mentioned is the greater segment, and that it will be cut in the same way as the whole line, if a part be taken on it equal to the less segment.

2. If a right line be bisected and also cut unequally, the rectangle under the unequal segments together with the square of the line between the points of sections equal to the square of half the line.

a. If from the vertex of an isosceles triangle a line be drawn to the base, the difference of the squares of this line and either side is equal to the rectangle under the segments of the base.

3. Assuming the theorem in 2 *a*. prove that if two chords of a circle intersect, the rectangles under their segments will be equal.

4. In a given triangle inscribe a circle.

a. Prove that in general four circles may be drawn to touch any three lines drawn at random.

5. If two triangles have one angle in each equal and the sides about the equal angles proportional, they are similar.

6. Similar triangles are to one another in the duplicate ratio of their homologous sides.

7. Parallelograms about the diagonal of any parallelogram are similar to the whole and to one another.

8. The rectangle under the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the rectangles under the opposite sides.

9. Find the number of yards of paper, $\frac{5}{8}$ yard wide, required to cover the walls of a room $19\frac{3}{3}$ feet long by 15 feet 9 inches wide and 12 $\frac{1}{7}$ feet high.

10. If the velocity of a ball fired from a gun vary as the square root of the weight of the powder used, and the velocity of a 32 lb. shot fired with a charge of 6 lbs. of powder be 1200 feet per second, find its velocity when the charge is increased to 8 lbs.

11. Add together $2\frac{1}{2} + 3\frac{1}{4} - \frac{1}{5}$: divide the resulting sum by the difference between $\frac{5}{7}$ and $\frac{3}{10}$.

12. Find the commission on $2736.37 at $\frac{1}{8}$ per cent.

13. Find a third proportional to .765 and 1.036 and express the duplicate ratio of these two numbers as a decimal.

14. Find the discount on £396 17 5¼d., due in 9 months, at 4 per cent.

SECOND YEAR.

EUCLID—ALGEBRA—TRIGONOMETRY.

WEDNESDAY, DEC. 15TH :—MORNING, 9 TO 1.

Examiner.....ALEXANDER JOHNSON, LL.D.

1. Construct a rectilinear figure similar to a given and equal to another.

2. Divide a right line similarly to a given divided line.

3. Sectors of a circle are in the same ratio as the arcs on which they stand.

4. In a circle inscribe a regular pentagon.

5. Reduce to its simplest form

$$\frac{1}{x-1} - \frac{1}{2(x+1)} - \frac{x+3}{2(x^2+1)}$$

6. Find the least common multiple of

$3x^2 - 11x + 6$, $2x^2 - 7x + 3$, and $6x^2 - 7x + 2$

7. Solve the equations

$$\frac{6x+13}{15} - \frac{3x+5}{5x-25} = \frac{2x}{5};$$

$$\left.\begin{aligned} axy &= c(bx + ay) \\ bxy &= c(ax - by) \end{aligned}\right\};$$

$$x + \sqrt{x^2 - ax + b^2} = \frac{x^2}{a} + b$$

8. Divide 90 into two parts, such that if half of the greater part be added to double the smaller, the result shall be the original number 90.

9. State and prove the properties of logarithms used in finding the products, quotients, roots and powers of numbers.

10. Deduce *sin* 18°, calculating it to three decimal places.

11. Prove $sin\,(A + B) = sin\,A\,cos\,B + cos\,A\,sin\,B$.

12. Prove

$$cos\,A + cos\,B = 2\,cos\,\tfrac{1}{2}(A + B)\,cos\,\tfrac{1}{2}(A - B)$$

What will this formula become when A and B are equal?

13. The three sides of a triangle are 220, 321 and 455 yds. respectively; find the angle opposite the last side.

14. From the summit of a light-house 85 feet high, standing on a rock, the angle of depression of a ship was 3° 38′, and at the bottom of the light-house the angle of depression was 2° 43′; find the horizontal distance of the vessel, and the height of the rock.

15. Find the height of a tower, a horizontal base of 245 feet being measured, and the angle of elevation being 35° 24′.

SECOND YEAR.

CONIC SECTIONS,—SOLID GEOMETRY.

WEDNESDAY, DECEMBER 15TH:—AFTERNOON, 2 TO 4.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Define a Conic Section in general, and then distinguish the Ellipse, Parabola, and Hyperbola.

2. From the definition of the Parabola deduce its figure, and describe a means of constructing it practically.

3. If y be the ordinate at any point of a parabola, x the abscissa, and m the distance of the focus from the vertex, prove

$$y^2 = 4mx.$$

4. If from any point two tangents be drawn to a parabola, a line drawn through this point parallel to the axis will bisect the chord of contact.

5. Show that the area included between the chord of contact and the parabola in the previous question is $\frac{2}{3}$ of the area of the triangle formed by the chord and the two tangents.

a. The principal parameter of a parabola is 4, if the abscissa of a point on the axis be 9, find the area included between the double ordinate at the point and the curve.

6. Three straight lines which meet in a point and are perpendicular there to the same straight line, must be in the same plane.

7. If two straight lines are at right angles to the same plane, they are parallel to one another.

8. Show for a tetrahedron that any one solid angle is contained by plane angles which together are less than four right angles.

THIRD YEAR.

MECHANICS—HYDROSTATICS.

MONDAY, DECEMBER 13TH :—MORNING, 9 TO 12.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Assuming that the resultant of any two *commensurable* forces meeting in a point is in the direction of the diagonal of the parallelogram formed by the forces, prove that this is also true for *incommensurable* forces.

2. If three forces meeting in a point are each proportional to the sine of the angle included by the other two, they are in equilibrium.

3. Describe the Roman steel-yard, and show how to graduate it.

4. If a waggon weighing 2 tons 14 cwt. rest upon an incline of 1 in 27, find the pressure upon the road.

5. Apply the principle of "constancy of work done" to find the ratio of the power to the resistance in the case of the *bent* lever.

6. Define a "constant force." How is it measured? If we speak of a constant force of 11.16 feet, state accurately what this length 11.16 feet is. Find the time during which this force (11.16 ft.) must act to produce a velocity of 100 feet per second.

7. Find the velocity acquired by a railway train in running down a gradient of 2164 feet, having a total fall of 31 feet; the force of gravity being 32.19, and the resistance from friction and the air being estimated at 7 lbs. per ton.

8. Show that the part of the centrifugal force which is employed in diminishing gravity at any point of the earth, varies as the square of the cosine of the latitude.

9. If the pressure on a surface of one square inch placed in a vessel of water be 10 lbs., find the pressure on one square inch placed 5 feet lower down.

10. State Dalton and Gay-Lussac's law for the variation of a volume of a gas with its temperature, and deduce from it the formula

$$V' = V\frac{460 + t'}{460 + t}$$

11. A cylindrical jar 10 inches in height is inverted and immersed (with the mouth uncovered) in water to the depth of 8 inches; find the height to which the water rises *inside* the jar, the height of the barometer being 30 inches.

12. Explain the use of the small hole which is made in the lid of a tea-pot.

THIRD AND FOURTH YEARS.

EXPERIMENTAL PHYSICS.—LIGHT.

MONDAY, DECEMBER 13TH :—AFTERNOON, 2 TO 4.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Give an outline of the theories of light that have prevailed at different times, pointing out the analogies they have followed. What is the difference between the motion of the particles in a wave of sound and a wave of light? How may it be shown experimentally that the motion of a wave is distinct from the motion of the particles of the wave?

2. Describe an easy home experiment by which the difference between shadow and penumbra may be exhibited. Account for the sharpness of the shadows thrown by the electric light as compared with those made by the sun.

3. Describe Roemer's method for finding the velocity of light, and calculate it, supposing the distance of the earth from the sun to be 91½ millions of miles.

4. State and prove the law for the variation of the intensity of the illumination of a given surface, whose inclination to the direction of the rays varies.

5. Describe Bunsen's method for comparing the intensity of two lights.

6. A narrow rectangular strip of polished steel 8 inches long is placed on a table in the same line with the foot of a candle which is 4 inches

from one extremity, and the height of the tip of whose flame above the table is 6 inches. Draw accurately the rays proceeding from the tip to the two extremities and to the middle point, and the reflected rays.

a. Find at what height the eye should be placed directly over the end of the strip in order to receive the middle reflected ray. At what height above the eye thus placed will the ray reflected from the end nearest the candle pass ?

7. State and prove the truth of the rule for finding the conjugate focus to a given luminous point for a concave spherical mirror.

a. Apply this rule to find (by drawing) the image of an arrow 3 inches long, placed half-way between the focus and the mirror at right angles to the axis of the mirror, and bisected by it ; the focal length of the mirror being 14 inches.

b. Draw a line through the centre of the mirror inclined at 30° to the axis. Take three points on this, outside the centre, at distances 10, 20, 30 inches respectively from the centre, and show by construction that the conjugate foci are nearer to the centre as the points are nearer the centre.

FOURTH YEAR.

MECHANICS—HYDROSTATICS—OPTICS—ASTRONOMY.

MONDAY, DECEMBER 13TH :—MORNING, 9 TO 1.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. If three forces, meeting at a point, equilibrate each other, the sum of their moments with respect to any point is zero.

a. Three forces of 30 lbs., 40 lbs. and 50 lbs. respectively, meeting at a point equilibrate each other, show by numerical calculation, that the above theorem is true for the point at the extremity of the line representing the force 30.

2. If the force required to draw a train of carriages on a level railroad be $\frac{1}{200}$th part of the load ; find the force required to ascend a gradient of 1 in 56.

3. A gang of 20 men is employed to pump water by means of a treadmill to a height of 40 feet : in what time will they raise 10,000 gallons, supposing one-third of the work applied to be lost by the friction of the pumps, the work done by each man per minute being 3897 ft. lbs.

4. Find the velocity acquired by a heavy body in falling down a circular arc whose plane is vertical, the chords from the highest and lowest points of the arc to the lowest point of the circle being a and x respectively.

5. Show that the acceleration of the time of oscillation of a pendulum due to a change of place is given approximately by the formula

$$n - n' = \frac{n}{2} \times \frac{g - g'}{g}$$

n and n' being the numbers of vibrations made in a mean solar day.

6. Investigate a formula for calculating the elastic force of the air in the receiver of an air-pump after a given number of strokes.

7. Describe the suction pump, and find the effective pressure on the piston.

8. Describe the method of finding the specific gravity of a small body by means of Nicholson's Hydrometer.

9. A hollow open cone is immersed base downwards in water until the water has risen half-way up inside the cone : find the depth to which the vertex of the cone has been immersed.

10. Describe the Newtonian Telescope, and calculate its magnifying power.

11. Describe the causes of long sight and of short sight, and calculate the focal length of a pair of spectacles for a short-sighted person whose distance of distinct vision is 4 inches. Should the glasses be convex or concave ?

12. Find the apparent depth of a river whose real depth is 8 feet.

13. The synodic period of Saturn is said to be 378.08 days. What is meant by this ? Calculate from it the time he takes to travel round his orbit.

14. Explain a method for calculating the heights of lunar mountains.

15. Define Parallax, and deduce a formula for calculating it.

16. How has the diameter of the earth been measured ?

ENGLISH AND RHETORIC.

FIRST YEAR.

ENGLISH, (GRAMMAR).

FRIDAY, DECEMBER 17TH :—MORNING, 9 to 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. What is a sentence ?—a phrase ?—a clause ?

2. Give examples of a noun clause, an adjective clause, an adverbial clause.

3. An adverbial phrase may be?

4. Arrange the following nouns in their proper classes—"town, house, regiment, Paris, King, Monday, Nature, fleet, Providence, nation, water, length, sand, health, city."

5. "This" and "that"—give examples of their use as adjectives and as pronouns.

6. Give examples of "but," "when," "where," used as relatives.

7. How is an adjective distinguished from a noun?

8. Explain the superlative forms,—"inmost," "uppermost," "foremost."

9. Show that the same verbs may be both transitive and intransitive.

10. Give examples of the partitive, attributive, reference significations of the preposition "of."

11. How is the subjunctive mood indicated in English?

12. Inanimate objects are often spoken of as male or female—How is this accounted for?

13. Give Sir Edmund Head's rules for the use of "shall" and "will."

14. What is the signification of the terms Indefinite, Imperfect, Perfect, as applied to tenses?

15. Explain the origin of the forms in—ing.

16. Give a grammatical analysis of the following sentences:

"He poured rewards and honours on the good;
"The oppressor he withstood,
"And, while he served the gods with reverence due,
"Fields smiled and temples rose and towns and cities grew.
"Him only pleasure leads and peace attends,
"Him, only him, the shield of Jove defends,
"Whose *means* are fair and spotless as his *ends*."

THIRD YEAR.

RHETORIC.

FRIDAY, DECEMBER 17TH:—MORNING, 9 TO 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Why was Rhetoric cultivated with greater assiduity by the Ancients than it is by the Moderns?

2. (1)Give the etymology of the term Rhetoric; (2.) What subjects did Aristotle include in it? (3) How is it limited by Whately?

3. Distinguish between the processes of Instruction and Conviction in the narrower Sense.

4. (1) What are Irregular arguments? (2) What Regular?

5. Explain the arguments denominated probable and necessary.

6. Explain discriminately the terms, condition and cause.

7. Whence arises the ambiguity that is attached to the words, "therefore," "because," "reason," "cause," "why"?

8. Mention generally the principal points appertaining to the evidence of Testimony.

9. In what cases is hearsay evidence legally admissible?

10. How does Whately show that the testimony of adversaries is usually incidental?

11. In what respects are arguments designated by the names of Induction, Experience, Analogy, Parity of Reasoning, &c., essentially the same?

12. Show in what respect arguments from Induction and Example differ.

13. What major premiss is universally assumed in arguments of this kind?

14. Give the substance of the remarks on Important and Unimportant resemblances and differences of cases.

15. What considerations determine on which side the *onus probandi* lies?

16. What are the considerations that determine the arrangement of arguments?

17. Explain the two ways in which any proposition may be refuted.

FOURTH YEAR.

ENGLISH LITERATURE.

FRIDAY, DECEMBER 17TH:—MORNING, 9 TO 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Describe the principal kinds of historical compositions.

2. How do you reply to the objection that history is merely the repetition of the same things or the same series of events?

3. (1). At what period of the Roman Empire was Literature most successfully cultivated? (2). When did a corruption of taste first manifest itself?

4. After Augustus, which of the Emperors first gave special encouragement to Literature? Which of them is the first chargeable with committing to the flames the works of literary genius?

5. (1). What Emperors are included in what was denominated the golden age of Imperial Rome? (2). Of these, which of them was the most remarkable for encouragement given to literary exertion?

6. Show how the removal of the seat of Empire operated unfavorably to the cultivation of Literature.

7. Mention the names of the principal ecclesiastical writers, who, in the decline of the empire, sustained the cause of Literature.

8. How did it happen that so many of the manuscripts of classical Literature were preserved during the invasions of the barbarians?

9. Give some account of Cassiodorus.

10. Mention the principal points of difference between the histories of Greek and Roman learning.

11. How does the history of the Arabians stand connected with the history of Literature?

12. Mention the chief conditions that serve to modify the literature of a people—those of a general character and those of particular periods of history.

13. Enumerate, with short explanatory remarks, the rules of Literary criticism

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MENTAL AND MORAL PHILOSOPHY.

SECOND YEAR.

ELEMENTARY PSYCHOLOGY.

FRIDAY, DECEMBER 17TH :—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL.D.

1. Explain what is meant by Consciousness.

2. Discuss the question, whether it is scientifically accurate to use such an expression as "I did that unconsciously."

3. Classify the Phenomena of Mind.

4. What sensations are often mingled and confounded with those of Taste?

5. (*a*) Distinguish the sensations of Touch. (*b*) What other sense generally aids Touch in these sensations?

6. Describe the different sensations of the Muscular Sense.

7. What are the criteria by which the intellectual rank of a sense is determined?

8. Test by these criteria the senses of Taste and of Sight, showing their comparative intellectual characters.

9. Explain what is meant by Suggestion.

10. State the Primary Laws of Suggestion.

11. Show that Suggestion by Contrast is due to the combined operation of these laws.

12. When a physician recommends change of scene to a patient suffering from mental anxiety, what Law of Suggestion does he rely upon for a cure?

13. Distinguish *A priori* and *A posteriori* Cognitions.

14. State Mr. Mill's theory of the origin of Self-consciousness.

THIRD YEAR.

MORAL PHILOSOPHY.

FRIDAY, DECEMBER 17TH:—AFTERNOON, 2 TO 5.

Examiner,.....J. CLARK MURRAY, LL.D.

1. Distinguish Moral from Political Philosophy.

2. Distinguish the two classes of Feelings.

3. (*a*). State the Empirical theory on the origin of the Emotions. (*b*). Mention some Emotions which can, and some which cannot, be explained empirically.

4. (*a*). Define Pleasure and Pain. (*b*). Explain the theory on which the definition is founded.

5. Explain wherein lies the value of Intensity in giving motive power to a feeling.

6. (*a*). Define an Appetite. (*b*). Show how a Natural Appetite may acquire artificial intensity. (*c*). Mention some Appetites that are wholly artificial.

7. Point out some sensuous cravings which do not possess the characteristics of the Appetites.

8. (*a*). Describe the desire called Emulation, and (*b*) explain how it degenerates at times into a malevolent affection.

9. (*a*). Describe the two-fold effect produced in our minds by the pleasures as well as by the pains of others, and (*b*) show that this affords the basis of the two species of malevolent affection.

10. Show that the moral character of an action does not depend on its external aspect.

11. Distinguish the *subjective* and *objective* conditions of absolute goodness in an action.

12. (*a*). Why may an action be sometimes relatively good when the objective condition is not fulfilled? (*b*) Why can an action never be good when the subjective condition is not fulfilled?

FOURTH YEAR.

MENTAL PHILOSOPHY.

THURSDAY, DECEMBER 16TH:—MORNING, 9 TO 12.

Examiner, ...J. CLARK MURRAY, LL.D.

1. Distinguish the Special from the General Sensations.

2. Describe the two processes by which the elements received from Sense and Self-consciousness are formed into cognitions.

3. Notice some of the figurative applications of the word Taste to non-sensuous cognitions.

4. (*a*) Which are the most intellectual, which are the least intellectual, of the Special Senses? (*b*) Explain how the superior intellectual character of the former is proved.

5. (*a*) Of what perception is a person deprived, who has lost the sensibility of one ear? (*b*) Explain the reason.

6. Why should a person with only one eye experience the stereoscopic effect from any good picture, while in ordinary circumstances that effect is not produced by a picture seen with both eyes?

7. Explain the principle upon which depends the visual perception of Magnitude, illustrating the principle by an example of its application.

8. On what Sensations do we found the visual perception of the Direction of bodies?

9. In the management of the voice, whether for speaking or singing, show that there is implied great delicacy of perception by one of the senses.

10. Explain the terms used to designate those cognitions which originate from the mind itself, mentioning the corresponding terms applied to cognitions which have a different origin.

MODERN LANGUAGES AND HEBREW.

FIRST YEAR.

FRENCH.

TUESDAY, DECEMBER 21ST:—MORNING, 9 TO 12.

Examiner.....P. J. DAREY, M.A., B.C.L.

1. What is the use of the *accents* in French? Illustrate your answer by three examples.

2. When do you translate *some* by *des*, by *quelques* or by *quelques-uns*? Give an example of each.

3. Write the plural of *plume, fils, bail, éventail, régal, hôpital, attirail, corail, bijou, joujou* and *sou.* Give also the meanings of those words. State the rules to form those plurals, and point out those which are exceptions to those rules.

4. Write the feminine of the adjectives *net, complet, secret, accusateur, meilleur, sculpteur, pécheur,* and the masculine of *fausse, rousse, impératrice, cantatrice.* Give the meaning of those words.

5. Compare the adjectives *mauvais, petit* and *better,* both an adjective and an adverb.

6. Explain fully the difference between the *possessive adjectives* and the *possessive pronouns.* Give the list of both. Give also four examples showing their use.

7. What difference is there between *chaque* and *chacun?* Give two examples.

8. Write in full the *Future, Subjunctive present* and *Imperfect of the Subjunctive* of *être, recevoir* and *se promener.*

9. Where do you place the subjects of verbs conjugated interrogatively? Give two examples.—What do you observe when a verb ends with a vowel in the 3rd person singular? Give two examples. What are the two ways of asking questions in French?

10. Translate into French:—A good scholar must always have his books, copybooks, inkstand, pencil ready. That house is well finished: from the roof to the cellar all is well done; the rooms, bedrooms, sideboard, kitchen, the partitions, the wainscot, all is in beautiful order. Lend me the best book in your library. He was a little better; but he is now worse than ever. This picture pleases me more than the other. The child to whom everything yields is the most unhappy. Read his letter and tell me what you think of it. Those arguments are conclusive; I see no reply to them. Ask, and it shall be given you; seek, and you shall find; knock, and it shall be opened unto you. When he had filled his pockets with pears and apples, he went away. Never yield to the violence of thy passions.

11. Translate into English:—*Maître Jacques.* Monsieur, puisque vous le voulez, je vous dirai franchement qu'on se moque partout de vous, qu'on nous jette de tous côtés cent brocards à votre sujet, et que l'on n'est point plus ravi que de vous tenir au cul et aux chausses, et de faire sans cesse des contes de votre lésine. L'un dit que vous faites imprimer des almanachs particuliers, où vous faites doubler les quatre-temps et les vigiles afin de profiter des jeûnes où vous obligez votre monde; l'autre, que vous avez toujours une querelle toute prête à faire à vos valets dans le temps des étrennes, ou de leur sortie d'avec vous, pour vous trouver une raison de ne leur donner rien.

MOLIÈRE, *l'Avare, A. III., sc.* 1.

SECOND YEAR.

FRENCH.

TUESDAY, DECEMBER 21ST :—MORNING, 9 TO 12.

Examiner,.....P. J. DAREY, M.A., B.C.L.

1. At whose request did Racine write the tragedy of *Esther?* Why was that request made? What was that person who made it? Write what you know about that person.

2. Translate into English:

Esther. Et que reproche aux Juifs sa (1) haine envenimée ?
Quelle guerre intestine avons-nous allumée ? (2)
Les a-t-on vus (3) marcher parmi vos ennemis ?
Fut-il jamais (4) au joug (5) esclaves plus soumis ?
Adorant dans leurs fers le Dieu qui les châtie,
Pendant que votre main sur eux appesantie
A leurs persécuteurs les livrait sans secours,
Ils conjuraient ce Dieu de veiller sur vos jours,
De rompre des méchants les trames criminelles,
De mettre votre trône à l'ombre de ses ailes.

ESTHER, *A. III., sc. IV.*

3. (1) Whose haine? 2, 3. Explain fully why those words are thus written. 4. What is the common meaning of *jamais?* What is its meaning here? 5. What is the etymology of *joug?*

4. Explain and translate the following expressions : Toi qui m'aidais à soupirer les malheurs de Sion. Et moi de joie et d'horreur pénétrée. Que tous les Juifs gardent un jeûne austère. Venez, de vos propres clartés me prêter le secours. Au nom du sacré nœud qui me lie avec vous. (Make a special remark about the place of sacré).

5. What is the gender of the word *gens?* How do you write the adjectives referring to *gens?* Give two examples.

6. State the five rules to write the plural of compound nouns in French. Give an example of each.

7. State three cases when the pronoun subject is placed after the verb, although no interrogation is meant. What difference is there between *quel* and *lequel?*

8. Explain fully when you have to translate the English *Pluperfect* by the French *Plus-que-parfait* and when by the *Passé antérieur.* Give an example of each.

9. When is the *Subjunctive mood* to be used? And when are the *Imperfect* and *Pluperfect* of the Subjunctive to be employed? Give an example of each.

10. How do you write the Past Participle which follows *le peu?* Give two examples.

11. What difference is there between *le plus* and *davantage ; j'ai peur qu'il vienne*, and *j'ai peur qu'il ne vienne*, *dans* and *en*, *autour* and *alentour?*

12. Translate into French: I went to the greenhouse which is situated behind the hedge, a little beyond the kitchen-garden. There were in the yard several farming implements, a plough, a harrow, a scythe, a sickle, a rake and a watering pot. There was a great fall in the stocks this season. Stock brokers did a greet deal of business. If my brother comes before I am up, show him into the dining-room, and give him a newspaper to amuse himself with till I come down. We must not judge a man by what he is ignorant of, but by what he knows. The Romans triumphed successively over the most warlike nations. Whatever you study, you must apply yourself to it with ardour. We should blush to commit faults, but not to acknowledge them.

THIRD YEAR.

FRENCH.

TUESDAY, DEC. 21ST :—MORNING, 9 TO 12.

Examiner,.....P. J. DAREY, M.A., B.C.L

Toutes les réponses devront être faites en français.

1. Traduisez en Anglais.

Les belles soirées sont revenues ; les arbres commencent à déplisser leurs bourgeons ; les hyacinthes, les jonquilles, les violettes et les lilas parfument les éventaires des bouquetières ; la foule a repris ses promenades sur les quais, sur les boulevards. Après dîner, je suis aussi descendu de ma mansarde pour respirer l'air du soir. C'est l'heure où Paris se montre dans toute sa beauté. Pendant la journée, le plâtre des façades fatigue l'œil par sa blancheur monotone, les chariots pesamment chargés font trembler les pavés sous leurs roues colossales, la foule empressée se croise et se heurte, uniquement occupée de ne point manquer l'instant des affaires ; l'aspect de la ville entière a quelque chose d'apre, d'inquiet et de haletant ; mais dès que les étoiles se lèvent, tout change ; les blanches maisons s'éteignent dans une ombre vaporeuse ; on n'entend plus que le roulement des voitures qui courent à quelque fête ; on ne voit que passants flâneurs ou joyeux ; le travail a fait place aux loisirs. Paris a déposé la plume, le mètre et le tablier ; après la journée livrée au travail, il veut la soirée pour jouir ; comme les maîtres de Thèbes, il a remis au lendemain les affaires sérieuses. EMILE SOUVESTRE, *Le philosophe sous les toits.*

2. Quel est le caractère distinctif de la littérature du XVIIIe. siècle ?

3. Nommez six littérateurs distingués du XVIIIe. siècle, et dites en quel genre de littérature ils se sont distingués. Citez quelques-uns de leurs principaux ouvrages.

4. Faites un aperçu biographique de Jacques Delisle et d'André Chénier.

5. Traduisez en français :

RURAL LIFE IN ENGLAND.

The stranger who would form a correct opinion of the English character must not confine his observations to the metropolis. He must go forth

into the country; he must sojourn in villages and hamlets; he must visit castles, villas, farm-houses, cottages; he must wander through parks and gardens; along the hedges and green lanes; he must loiter about country churches; attend wakes and fairs, and other rural festivals; and cope with the people in all their conditions, and in all their habits and humours. In some countries the large cities absorb the wealth and fashion of the nation: they are the only fixed abodes of elegant and intelligent society, and the country is inhabited almost entirely by boorish peasantry. In England, on the contrary, the metropolis is a mere gathering place, or general rendez-vous, of the polite classes, where they devote a small portion of the year to a hurry of gaiety and dissipation, and having indulged this carnival, return again to the apparently more congenial habits of rural life. The various orders of society are therefore diffused over the whole surface of the kingdom and the most retired neighbourhoods afford specimens of the different ranks.

WASHINGTON IRVING, *Sketch Book.*

JUNIOR CLASS.

GERMAN.

TUESDAY, DEC. 21ST:—AFTERNOON, 2 TO 5.

Examiner,.....C. F. A. MARKGRAF, M.A.

1. Translate into English:—

Still und ſchweigend, wie es ihre Weiſe iſt, ſaßen die beiden wohlthätigen Genien der Menſchheit in traulicher Umarmung, und ſchon nahete die Nacht.

Da erhob ſich der Engel des Schlummers von ſeinem bemoos'ten Lager, und ſtreuete mit leiſer Hand die unſichtbaren Schlummerkörnlein. Die Abendwinde trugen ſie zu den ſtillen Wohnungen des müden Landmannes. Nun umfing der ſüße Schlaf die Bewohner der ländlichen Hütten, von dem Greiſe, der am Stabe geht, bis zu dem Säugling in der Wiege. Der Kranke vergaß ſeine Schmerzen, der Trauernde ſeinen Kummer, der Arme ſeine Sorgen. Alle Augen ſchloſſen ſich.

Jetzt, nach vollendetem Geſchäfte, legte ſich dieſer wohlthätige Genius wieder zu ſeinem ernſteren Bruder hin. „Wenn die Morgenröthe anbricht," rief er mit fröhlicher Unſchuld, „dann preiſet mich die Welt als ihren Freund und Wohlthäter! O welche Freude, ungeſehen und heimlich Gutes zu thun! Wie glücklich ſind wir unſichtbaren Boten des guten Geiſtes! Wie ſchön unſer ſtiller Beruf!"

So ſprach der freundliche Engel des Schlummers.

(*Fragment from Krummacher's* „Tod und Schlaf.")

2. (*a.*) Which nouns adding the *plural* ending „e" *must* modify the radical vowel? (*b.*) When is the radical vowel of those nouns modified the nominatives of which are *alike* in both numbers? (*c.*) Write down some *masculine* and *neuter* nouns which take the ending „n" in the Plural. (*d.*) Give *six* feminine nouns formed from masculines.

3. Give the gender and Nominative Plural of:—Waare, Volk, Zeit, Wochentag, Frucht, Handſchuh, Thaler, Schweſter, Monat, Doctor, Kopf. Haar;—and the meaning and Nominative Singular of:—Könige, Gräſer, Gärtchen, Fräulein, Straßen, Sträucher, Blumenblätter, Leuchter, Nüße, Körbe, Kettenbrücken, Bücherſchränke.

4. Decline, giving the Nominatives, Datives and Accusatives of the Sing. and Plural:—our good son; this old town; *some* new, blue cloth.

5. (*a*) When may adjectives be inflected, although used *predicatively?* Give two examples. (*b*) Form adjectives from Kryſtall, Blech, Eiſen, Horn, Wolle, Glas, Meſſing, Knochen, Stoff. (*c*) Compare:—lang, neu, klug, nahe, kalt, hoch, ſcharf, trocken, kurz.

6. (*a.*) Decline the *personal* pronouns. (*b.*) Of what meanings are the pronouns „ſein" and „ihr" susceptible? (*c.*) Give the various German equivalents for '*that*.'—Add short examples for (*b*) and (*c*).

7. Translate:—Der Schnee iſt das ſchönſte Weiß.* Haben Sie mir etwas Neues* zu ſagen? Er kann* ſchon deutſch. Wir leſen gern.*—Give rules for the construction of the words marked with asterisks.

8. (*a.*) Write down the 1st and 3rd Sing., and the 1st Plural, Present Indicative, of the modal auxiliaries mögen, ſollen, müſſen, wollen, dürfen, können, and of wiſſen, reiſen, ſein, finden. (*b.*) Give the Past Participles of:—rathen, verſprechen, ſehen, erzählen, vergeben, leihen, binden, bringen, verbieten, nehmen, regnen, weggehen.

9. Translate into German:—

Germany has several large rivers, but the Rhine (Rhein, m.) is the finest of (von, Dat.) all. We have had the good fortune to have a faithful friend. These merchants have lost all their ships. Many peasants can neither read nor write. He has sold his house, garden and field to his neighbour. Pigeons, geese, ducks and hens are large birds. 8 times 15 is 120. I have bought 46 pounds of sugar. They sailed (Perf.) the 26th of November 1861, and arrived (Perf.) the 14th of April 1862. Show me three kinds of paper, white, green and brown. Children like playthings. Hear my words! Let us go! Whom do you know? The person whom (welcher, Acc.) you seek does not live here. This tradesman works ten hours every day. Grateful nations erect (errichten) statues of bronze or stone to their great men.

REMARK.—All figures given above to be expressed in letters.

JUNIOR CLASS.

HEBREW.

FRIDAY, DECEMBER 17TH :—MORNING, 9 TO 1.

Examiner,.....REV. A. DE SOLA, LL.D.

1. Give a brief sketch of the origin and history of the Hebrew language, dwelling especially upon the following points: *a*, its origin; *b*, its claims to be considered the primitive language of mankind; *c*, its chief characteristics; *d*, the various periods assigned for the origin of the vowel-point system; *e*, the *Massorah*, and its influence in fixing the sense of the scriptural text and the etymological value of words.

2. State the ancient divisions of the alphabet in respect to letters of the same organ, the silent, the guttural and labial letters and those not receiving Dagesh דגש.

3. Write the rules for Dagesh; show when it is lene (קל) and when forte חזק.

4. Give the rules for sheva שוא showing when it is syllabical נע and when quiescent נח.

5. Describe the rhetorical and musical accents נגינות, and explain Metheg מתג and its influence on syllabication, more especially with reference to the distinction between long and short kamets קמץ.

6. Explain Makkaph מקף and Patach furtivum פתח גנובה; show when and where the latter is used and its effect upon pronunciation.

7. Describe Mappik מפיק and its uses. Show how it is distinguished from Dagesh.

8. Give the rules for kamets קמץ long and short, and show especially the influence of Makkaph מקף, Dagesh דגש and Metheg מתג upon it.

9. Explain the origin of the marginal readings known as Keri Uchtib קרי וכתיב, their use and value.

10. What have you to say of the Semitic family of languages in respect to their origin, main points of agreement among themselves, and distinctive character in respect to more western languages. Show how some of these characteristics in the Hebrew especially affect its claim as a primitive language.

11. Write examples of words, significant or not, illustrating the rules for Patach furtive, Dagesh forte, Dagesh lene, Sheva quiescent, Sheva syllabical, Metheg, Mappik and Makkaph.

12. Analyze in Hebrew text-book lines 4, 5, 6, on page 16.

SENIOR CLASS.

HEBREW.

FRIDAY, DECEMBER 17TH:—MORNING, 9 TO 1.

Examiner,.....REV. A. DE SOLA, LL.D.

1. How are the construct cases of nouns formed when they have an immutable vowel in the terminating syllable of the nominative? What change must the first syllable undergo if with a mutable vowel? what the second syllable if so pointed?

2. Write the noun שלחן with the pronominal suffixes, singular and plural.

3. Give some general rules respecting the changes masculine nouns undergo to form their construct case singular.

4. Write in parallel columns the verb למד in the קל and נפעל forms, and give a resumé of the main points of difference in their construction.

5. Show how the various examples of Segholates, as given by Gesenius after the old Hebrew grammarians, may be included in one general description.

6. Write the verb לבש in Piel and Pual forms.

7. Translate Psalms i. and ii.

8. Analyze thoroughly in Ps. ii., verses 3, 4, 5 and 6.

9. Add the pronominal suffixes, singular and plural, to a noun joined to an adjective *e.g.*, הסוס הטוב.

10. Give examples showing terminations of construct state of feminine nouns ending in ה, of nouns in the masculine plural, feminine plural, and in the dual, absolute and construct forms.

11. Translate into Hebrew:—The ways of wisdom are the ways of pleasantness, and all her paths are peace. There arose a man from the other side the river Euphrates in whose heart God put discernment and knowledge to understand the evil ways of that generation who bowed down to idols that could be of no avail to them. He abandoned the abominations of his parents and set his heart on seeking God the Most High, the Creator of heaven and of earth.

12. Translate into English:—

ויעבוד את ה׳ אל אמת אלהים חיים ומלך עולם ויעבור אברהם בארץ כנען ויקרא גם לכל אנשי הדור ההוא בשם ה׳ אל עולם ויאהב ה׳ את אברהם בעבור זאת:

CHEMISTRY AND NATURAL SCIENCES.

FIRST YEAR IN ARTS AND JUNIOR YEAR IN THE DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

ELEMENTARY CHEMISTRY.

MONDAY, DECEMBER 20TH :—AFTERNOON, 2 TO 5.

Examiner,.....B. J. HARRINGTON, B.A., Ph.D.

1. What simple relation exists between the molecular weight and density of compound gases?

2. Define the terms atom, molecule and compound radicle.

3. Explain the relations between the measures of length, volume, and weight in the metric system.

4. Express by a chemical equation the change which takes place (1) when Hydric Chloride acts upon Calcic Carbonate, and (2) when Hydric Nitrate acts upon Copper.

5. How is Nitrous Oxide prepared, and what are its properties?

6. How may an analysis of air by weight be made?

7. Give the general formula for the Olefine Series, and the properties of the first member of the series.

8. How is Carbonic Oxide prepared, and what are its properties?

9. Give examples of acid, normal and double salts.

10. What are the principal uses to which Carbon in its various forms is put in the Arts?

SECOND YEAR.

ELEMENTARY BOTANY.

MONDAY, DECEMBER 20TH :—MORNING, 9 TO 12.

Examiner,.....J. W. DAWSON, LLD., F.R.S.

1. Describe the Cell-walls in a living Parenchymatous Cell.

2. Distinguish the two principal modes of Cell Multiplication.

3. Under what conditions and appearances do the following substances occur in cells.

(a) Aleurone; (b) Starch; (c) Cystoliths; (d) Chlorophyll.

4. What is Latex or Proper Juice, and in what tissues contained.

5. Describe the normal structure and functions of the Root.

6. Describe the Fibro-vascular tissues in an Exogenous stem.

7. Describe the appearance of Stomata and Glandular Hairs, under the microscope.

8. Distinguish shortly between Parasites and Epiphytes; Vascular and Cellular plants; Cryptogams and Phænogams; Scalariform vessels and Dotted ducts.

9. Define Prosenchyma, Corm, Cyclosis, Thallus.

10. Explain the course of the Sap and the functions of the Leaf.

THIRD YEAR AND MIDDLE YEAR IN APPLIED SCIENCE.

ELEMENTARY ZOOLOGY.

MONDAY, DECEMBER 20TH:—MORNING, 9 TO 12.

Examiner,.....J. W. DAWSON, LL.D., F.R.S.

1. State shortly the resemblances and differences of the Animal and the Plant.

2. Describe Bone and Cartilage, and state their relations.

3. State the different types of nervous system, and give examples of the Animals in which they occur.

4. Explain Ciliary Motion.

5. Explain Respiration, and describe the parts concerned in it, in air and in water.

6. Give an example of the use of Classes, Orders, Families and Genera in Zoology.

7. Describe the appearance of Blood-Cells and Muscular Fibre, as seen under the microscope.

8. Explain the primary subdivision of the animal kingdom into Provinces, giving the characters of one of them in full.

9. Describe fully the structures of *Amœba*.

10. Describe *Paramœcium* or *Vorticella*.

11. Characterize the *Foraminifera* and *Polycistina* with examples, and state their geological functions.

12. Explain the distinction between *Zoantharia* and *Alcyonaria* with examples, and state the place assigned to the fossil *Rugosa* and *Tabulata*.

FOURTH YEAR, AND SENIOR YEAR IN ENGINEERING.

MINERALOGY AND LITHOLOGY.

MONDAY, DEC. 20TH:—AFTERNOON, 2 TO 5.

Examiner,.....J. W. DAWSON, LL.D., F.R.S.

1. Describe the several Felspars, with their differences and modes of occurrence.

2. Describe Calcite, Barite, Pyroxene and Mica, with their relations to rocks and mineral veins.

3. By what characters can Magnetite be distinguished from Specular Iron, and Blende from Tinstone.

4. State the Composition of the principal ores of Copper.

5. What are the constituent minerals of Granite, Syenite, Diorite, and Dolerite ?

6. Name and describe the more common Aqueous Rocks of the Silicious group.

7. Explain the mode of formation of Chalk, Glauconite, Oolite.

8. What are the chemical composition and mode of formation of Coal, Bitumen and Graphite.

9. Name and describe the principal kinds of Crystalline Schists occurring in Canada.

10. Give a tabular classification of Rocks, and explain the grounds on which it is based.

11. Name and describe the Rocks exhibited and the minerals contained in them.

JUNIOR YEAR.

DRAWING.

THURSDAY, DECEMBER 16TH:—MORNING, 9 TO 12.

Examiner,.....G. F. ARMSTRONG, M.A., C.E.

1. Construct a diagonal scale of inches.

2. Erect a perpendicular to a right line at one end of it.

3. Divide a right line 3·55 in. long into six equal parts.
   (*a*) Prove geometrically the correctness of your method.

4. Draw a circle that shall pass through three given points not in the same straight line.

5. Construct a regular pentagon equal in area to a square of 3·23 in. side.

6. Draw a parabolic arch the span of which is 5·27 in., and the rise 2·5 in.

7. Project orthographically:

(*a*) A piece of wire 4·25 in. long, when parallel to the horizontal and making an angle of 35° with the vertical plane.

(*b*) A square plane of 3 in. side, when it makes an angle of 45° with both planes of projection.

(*c*) A square wooden pipe of 2·57 in. side, 5 in. long, and of 2·5 in. in thickness, cut by a plane, the lines of intersection of which with two faces of the pipe are at right angles to its length, and when the upper portion is turned round on its axis through 180°, so that there is an angle of 120° between the axes of the two portions into which the pipe is cut. The axis of the lower portion is supposed to be perpendicular to the horizontal plane, and that of the upper portion to make an angle of 45° with the vertical plane.

Scale:—The Diagonal scale constructed in Question 1.

NOTE.—Neatness and accuracy are in all cases essential.

JUNIOR YEAR.

SURVEYING.

THURSDAY, DECEMBER 16TH:—AFTERNOON, 2 TO 5.

Examiner,..... .....G. F. ARMSTRONG, M.A., C.E.

1. Give a definition of surveying, and explain the difference between a geographical and a topographical map.

2. How would you set about making a survey?

3. Describe the Cross-staff and Optical-square, and specify the purposes for which they are used.

4. What are oblique off-sets, and when should recourse be had to their employment?

5. Explain a method of continuing the chaining of a line by means of similar triangles, when an obstacle is met with that cannot be chained across, but that can be seen over and chained round.

6. Explain fully why Gunter's chain is peculiarly useful in estate surveying.

7. How are areas computed?

8. Explain the following: *Station*, *Tally*, *Driver*, *Picket*, *Well-conditioned Triangle*, *Loose Line*, *Field-book*.

NOTE.—In addition to this paper a Chain-Survey was plotted by each student from original notes.

JUNIOR YEAR.

PRACTICAL MECHANICS.

SATURDAY, DECEMBER 18TH :—MORNING, 9 TO 12.

Examiner,.....G. F. Armstrong, M.A., C.E.

1. What is the weight of a rectangular block of marble whose length is 12 feet, and section four feet square, the sp. gr. of the marble being 2.64?

2. The "Modulus" of cast iron as given by Mr. Mosely is 17,000,000. What does this number represent?

a. By how much would a bar of cast iron, $\frac{1}{4}$ of an inch square, and 100 feet long, lengthen, under a stress of two tons, the weight of the bar being neglected?

3. What must be the Horse-power of an engine that raises 20 cubic feet of water per minute from a depth of 200 feet?

4. The mean section of a stream is 5 ft. by 3 ft., and its mean velocity is 35 ft. per minute. On it there is a fall of 13 feet at which a water wheel, whose modulus is 0·65, is erected; determine the horse-power of the wheel.

5. Explain and illustrate by examples :—

"Crushing by bulging," "ultimate strength,"
"Duty" (as applied to an engine),
and "Reaction."

6. Draw two lines, A B and A C, at right angles to each other; a force of 30 lbs. acts from A to B, and one of 40 lbs. from A to C; find their resultant.

7. A point O is in equilibrium under the action of three forces; show that if any three lines whatever be drawn parallel to the directions of these forces, they will form a triangle, the sides of which will be to one another in the same ratio as the forces.

8. A wall of brick-work, 3 feet thick and 25 feet high, sustains on the inner edge of its summit a certain pressure on every foot of its length, and the direction of this pressure is inclined to the horizon at an angle of 60°; find its amount when it will just not overthrow the wall.

a. What would be the effect of a bracket on the inside of the wall were the force to act at the inside end of the bracket?

9. There is a roof weighing 20 lbs. per square foot, the pitch of which is 60°, and the distance between the side walls is 30 ft. It is supported by walls of stone, 20 ft. high and 2·4 feet thick; the sp. gr. of the stone being 2·15. What is the excess of the moment of five feet of its length over that of the thrust?

10. What is the use of a buttress?

NOTE :—Questions 6, 8, and 9, are to be solved by the "Graphic Method."

SENIOR AND MIDDLE YEARS.

DRAWING.

THURSDAY, DECEMBER 16TH:—MORNING, 9 TO 12.

Examiner,.....G. F. ARMSTRONG, M.A., C.E.

Project perspectively, assuming height of eye to be 6 ft. and the picture distance 15 ft.:—

1. A wall 12 ft. long by 6 ft. high and 2 ft. thick, supported by three pillars each 2 ft. square and 6 ft. high, placed four feet apart from centre to centre; the length of the wall is at right angles to the picture plane, and the object in the foreground, six feet on the right of the spectator.

2. A wooden case, the face of which is 7 ft. high and 5 ft. wide, and the depth of which is one foot; the face is parallel to the picture plane, and the nearest corner is four feet on the left of the spectator, and three feet within the picture plane. The material of which the case is made is 2 in. thick, and the case itself is divided into nine equal rectangular compartments, open towards the face.

3. Three cubes, the axes of which form one vertical right line, have edges of 3 ft., 4 ft. and 5 ft. respectively. The smallest cube is at the bottom and the largest at the top, and one face of each is parallel to the picture plane; the nearest corner of the object, which is in the foreground, is three feet on the left of the spectator.

4. A square pyramid, a side of the base of which is 4 ft. and whose altitude is 9 ft., when in the foreground and resting on its apex, which is five feet on the left of the spectator.

Scale:—Half an inch equal one foot.

NOTE.—Neatness and accuracy are in all cases essential.

MIDDLE YEAR.

LEVELLING.

THURSDAY, DECEMBER 16TH:—AFTERNOON, 2 TO 5.

Examiner,.....G. F. ARMSTRONG, M.A., C.E.

1. Define a level line, and explain what is meant by apparent and by true level respectively.

2. How does the Earth's curvature affect levelling operations?

3. What is the effect of seeing an object in the direction of the "visual ray," and upon what physical cause does it depend?

4. In how many different ways may the Theodolite be used to ascertain differences of height? Explain each.

5. Of what use is the Thermometer in levelling operations?

6. Describe the Pocket-level, and its uses.

7. What details of management in the use of the Level staff require special attention in the field?

8. There are two principal methods of reducing the entries in the field-book to a common datum. Point out the essential steps in each.

SENIOR AND MIDDLE YEARS.

CONSTRUCTION.

SATURDAY, DECEMBER 18th:—AFTERNOON, 2 TO 5.

Examiner,..... .....G. F. ARMSTRONG, M.A., C.E.

1. If, in tracing the direction of a proposed road, a valley has to be crossed, upon what considerations should you depend in the selection of a route?

2. How should earth be placed in embankment (*a*) on level, (*b*) on side-long ground?

3. What is the use of mitre-drains? and under what circumstances should they be used?

4. It is sometimes necessary to carry a road along the face of an apparently inaccessible cliff. By what means may this usually be accomplished?

5. If you were asked to suggest improvements in an existing road, to what points in its condition would you first direct your attention?

6. How would the position of the drift-line of the strata in a cutting influence you in the determination of the proper inclinations of the slopes?

7. In what respects does the system of road construction advocated by Telford differ from that introduced by McAdam?

8. Why is it that the aspect and exposure of a road become matters of such importance?

9. Describe the formation of the superstructure of a first-class high road, fitted to serve as a means of communication between places of importance.

10. Under what circumstances are (*a*) Breast, and (*b*) Retaining-walls respectively employed?

11. Describe the formation of a Plank-road.

12. Write a short specification for a 5 ft. culvert that is to pass under a road supported by a breast-wall.

Note.—Answers should be concise and, as far as possible, illustrated by sketches and diagrams.

SENIOR YEAR.

PRACTICAL MECHANICS.

SATURDAY, DECEMBER 18TH:—MORNING, 9 TO 12.

Examiner,..... .....G. F. ARMSTRONG, M.A., C.E.

1. Define the Modulus of Elasticity.

A bar of wrought iron a square inch in section is fixed firmly between two immovable walls 50 ft. apart; if the temperature is raised 50° F. above that which the bar had when fixed, find the pressure produced against the walls, supposing the Modulus of Elasticity of iron to be twenty-nine millions, and its expansion for 1° F. to be ·00000642 of its length.

2. How may a comparison of the efficiency of two agents be made?

A train whose gross weight is 90 tons, travels at the rate of 25 miles per hour; if the resistances equal 8 lbs. per ton, what is the horse-power of the engine?

3. State the conditions of equilibrium of a triangular frame.

Two rafters each 20 ft. long are tied together by an iron tension bar 35 ft. long, and a weight of 1 ton is suspended from the apex; determine the stress produced on the tie bar, neglecting the weight of the frame.

4. State and prove the principle of the concurrence of three balancing forces.

Draw a vertical line A B, and a line A C making an angle of 30° with it; place an equilateral triangle, weighing 50 lbs., between these lines, with one angle on A B and the other two on A C. Assuming that the surfaces are smooth, find the pressures on A B, A C.

5. Find the resultant of two equal and opposite parallel forces.

Prove the accuracy of Roberval's balance.

6. Determine the conditions of equilibrium of any number of forces acting in one plane upon different parts of a rigid body.

A uniform beam, whose weight is W, and length 6 feet, rests on a vertical prop C D equal to 3 ft.; the other end A is on a smooth horizontal plane A D, and is prevented from sliding by a string equal to 4 ft. Find the tension of this string.

7. Find the centre of any system of parallel forces acting in one plane.

Three parallel forces, acting at the angular points A, B, C of a plane triangle, are respectively proportional to the opposite sides a, b, c; find the distance of the centre of parallel forces from A.

8. Show how the volume of any solid of revolution may be found, if the area and position of the centre of gravity of the plane figure, by the revolution of which it is generated, are known.

A parallelogram and a triangle, on the same base and between the same parallels, revolve around the base as an axis. Compare the solids they generate.

MIDDLE YEAR.

MINING COURSE.

USE OF THE BLOWPIPE AND ASSAYING.

SATURDAY, DECEMBER 18TH:—MORNING, 9 TO 12.

Examiner,.....B. J. HARRINGTON, B.A., Ph.D.

1. What are the principal wet and dry reagents required for blowpipe analysis?

2. What are the phenomena to be observed when substances are heated in closed tubes?

3. What Oxides would be indicated by charcoal coatings of the following colours?—White; reddish-brown; dark lemon yellow when hot and sulphur yellow when cold; pale yellow when hot, white when cold.

4. What colours are communicated to the blowpipe flame by Strontia, Lime, Baryta, Phosphoric Acid and Chloride of Copper?

5. How is Sulphur detected in minerals by means of Nitrocyanide of Sodium?

6. How do the oxides of Chromium, Cobalt, Copper and Lead act when heated in the oxydising flame on Platinum wire with Carbonate of Soda?

7. What are the principal fluxes used in assaying, and what their special uses?

8. Describe any method for the determination of Copper in the wet way.

9. How is the operation known as *parting* carried out?

10. What precautions are necessary in making a scorification assay for Silver of ores containing large quantities of Arsenic or Zinc?

SESSIONAL EXAMINATIONS, 1876.

CLASSICS.

FIRST YEAR.

MONDAY, APRIL 3RD:—MORNING, 9 TO 12.

GREEK—HOMER—ILIAD. BOOK VI.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Ὦ πέπον, ὦ Μενέλαε, τίη δὲ σὺ κήδεαι αὖτως
ἀνδρῶν; ἢ τοι ἄριστα πεποίηται κατὰ οἶκον
πρὸς Τρώων· τῶν μήτις ὑπεκφύγοι αἰπὺν ὄλεθρον,
χεῖράς θ' ἡμετέρας· μηδ' ὄντινα γαστέρι μήτηρ
κοῦρον ἐόντα φέροι, μηδ' ὃς φύγοι· ἀλλ' ἅμα πάντες
Ἰλίου ἐξαπολοίατ' ἀκήδεστοι καὶ ἄφαντοι.
Ὣς εἰπὼν ἐτρεψεν ἀδελφειοῦ φρένας ἥρως,
αἴσιμα παρειπών. ὁ δ' ἀπὸ ἕθεν ὦσατο χειρὶ
ἦρω' Ἀρήστον· τὸν δὲ κρείων Ἀγαμέμνων
οὐτα κατὰ λαπάρην· ὁ δ' ἀνετράπετ'· Ἀτρείδης δὲ
λᾶξ ἐν στήθεσι βάς, ἐξέσπασε μείλινον ἔγχος.

(B) Ὣς ἔφατ' εὐχομένη· ἀνένευε δὲ Παλλὰς Ἀθήνη.
Ὣς αἱ μέν ῥ' εὔχοντο Διὸς κούρῃ μεγάλοιο.
Ἕκτωρ δὲ πρὸς δῶμα' Ἀλεξάνδροιο βεβήκει,
Καλά, τά ῥ' αὐτὸς ἔτευξε σὺν ἀνδράσιν, οἳ τότ' ἄριστοι
Ἦσαν ἐνὶ Τροίῃ ἐριβώλακι τέκτονες ἀνδρες·
Οἵ οἱ ἐποίησαν θάλαμον καὶ δῶμα καὶ αὐλὴν
Ἐγγύθι τε Πριάμοιο καὶ Ἕκτορος ἐν πόλει ἀκρῃ.
Ἔνθ' Ἕκτωρ εἰςῆλθε Διί φίλος· ἐν δ' ἄρα χειρὶ
Ἔγχος ἔχ' ἑνδεκάπηχυ· πάροιθε δὲ λάμπετο δουρὸς
Αἰχμὴ χαλκείη, περὶ δὲ χρύσεος θέε πόρκης.
Τὸν δ' εὗρ' ἐν θαλάμῳ περικαλλέα τεύχε' ἑποντα,
Ἀσπίδα καὶ θώρηκα καὶ ἀγκύλα τόξ' ἀφόωντα·
Ἀργείη δ' Ἑλένη μετ' ἄρα δμωῇσι γυναιξὶν
Ἧστο, καὶ ἀμφιπόλοισι περικλυτὰ ἔργα κέλευεν.
Τὸν δ' Ἕκτωρ νείκεσσεν ἰδὼν αἰσχροῖς ἐπέεσσιν.

(C) Ὣς εἰπὼν οὔ παιδὸς ὀρέξατο φαίδιμος Ἕκτωρ·
ἀψ δ' ὁ πάϊς πρὸς κόλπον ἐϋζώνοιο τιθήνης
ἐκλίνθη ἰάχων, πατρὸς φίλου ὄψιν ἀυχθείς,
ταρβήσας χαλκόν τ' ἠδὲ λόφον ἱππιοχαίτην,
δεινὸν ἀπ' ἀκροτάτης κόρυθος νεύοντα νοήσας·
ἐκ δ' ἐγέλασσε πατήρ τε ὁμῶς καὶ πότνια μήτηρ.
αὐτίκ' ἀπὸ κρατὸς κόρυθ' εἵλετο φαίδιμος Ἕκτωρ,
καὶ τὴν μὲν κατέθηκεν ἐπὶ χθονὶ παμφανόωσαν·
αὐτὰρ ὅγ' ὃν φίλον υἱὸν ἐπεὶ κύσε, πῆλέ τε χερσίν,
εἶπεν ἐπευξάμενος Διί τ' ἄλλοισιν τε θεοῖσιν.

2. Explain carefully the following constructions :—(*a*) *ἀφνειὸς βιότοιο.* (*b*) *πυρὸς δηίοιο θέρηται.* (*c*) *χαρείη δὲ φρένα μήτηρ.* (*d*) *τῶν μήτις ὑπεκφύγοι αἰπὺν ὀλεθρον.* (*e*) *ἵππω γὰρ οἱ ἀτυζομένω πεδίοιο.* (*f*) *ἐνάρων ἐπιβαλλόμενος.*

3. Write down the *Nom. Sing.* of the following and decline them :—*κόρυθος, δουρός, κρατός, στήθεσι, κληῖδι, εὐρέα, ὀΐεσσιν, χήτει.*

4. Distinguish between the following as to their meaning :—*κράτος, κρατός. θέων, θεῶν. φώς, φῶς. ἀνα, ἀνά,* and *ἂν. εἶπε, εἰπέ. ὁ πόσις, ἡ πόσις. ὁ οὐδός, ἡ οὐδός. εἷς, εἷς,* and *εἰς.*

5. Parse the following verbs :—*ἦ, τέτμεν, ὀνήσεαι, γόον, κατέδυ, πῆλε, ὀρέξατο, ἀπόερσε, ἐπιπλώς, χάνοι, οὖτα.*

6. (*a*) Name the metre of the Iliad and write down the scale. (*b*) Scan the last five verses of ext. (A), and account for the quantity of the ultimate in the words *ἀπὸ* and *κατὰ*, as there used.

7. (*a*) What is meant by Augment and Reduplication, and what are they used to denote? (*b*) With what Moods are *εἰ* and *ἐὰν* severally used? (*c*) Write down the Aorist and Future (1st Sing.) of:—*βούλομαι, ἐλαύνω, διαφθείρω, εὑρίσκω, φέρω.*

8. Write an account of Homer and of the Homeric Poems

INTERMEDIATE EXAMINATION, 1876.

MONDAY, APRIL 3RD :—MORNING, 9 TO 12.

GREEK.—ISOCRATES.—THE PANEGYRICUS.

Examiner.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Τῶν τοίνυν τὰς πανηγύρεις καταστησάντων δικαίως ἐπαινουμένων, ὅτ τοιοῦτον ἔθος ἡμῖν παρέδοσαν ὥστε σπεισαμένους καὶ τὰς ἐχθρας τὰς ἐνεστηκυίας διαλυσαμένους συνελθεῖν εἰς ταὐτὸν, καὶ μετὰ ταῦτ' εὐχας καὶ θυσίας κοινὰς ποιησαμένους ἀναμνησθῆναι μὲν τῆς συγγενείας τῆς προς ἀλλήλους ὑπαρχούσης, εὐμενεστέρως δ' εἰς τὸν λοιπὸν χρόνον διατεθῆναι πρὸς ἡμᾶς αὐτοὺς, καὶ τὰς τε παλαιὰς ξενίας ἀνανεώσασθαι καὶ καινὰς ἑτέρας ποιήσασθαι, καὶ μήτε τοῖς ἰδιώταις μήτε τοῖς διενεγκοῦσι τὴν φύσιν ἀργὸν εἶναι τὴν διατριβὴν, ἀλλ' ἀθροισθέντων τῶν Ἑλλήνων ἐγγενέσθαι τοῖς μὲν ἐπιδείξασθαι τὰς αὐτῶν εὐεξίας, τοῖς δὲ θεάσασθαι τούτους πρὸς ἀλλήλους ἀγωνιζομένους, καὶ μηδετέρους ἀθύμως διάγειν, ἀλλ' ἑκατέρους ἔχειν, ἐφ' οἷς φιλοτιμηθῶσιν, οἱ μὲν ὅταν ἴδωσι τοὺς ἀθλητὰς αὐτῶν ἕνεκα πονοῦντας, οἱ δ' ὅταν ἐνθυμηθῶσιν, ὅτι πάντες ἐπὶ τὴν σφετέραν θεωρίαν ἥκουσι,—τοσούτων τοίνυν ἀγαθῶν διὰ τὰς συνόδους ἡμῖν γιγνομένων οὐδ' ἐν τούτοις ἡ πόλις ἡμῶν ἀπελείφθη.

(B) Μέχρι μὲν οὖν τούτων οἶδ' ὅτι πάντες ἂν ὁμολογήσειαν πλείστων ἀγαθῶν τὴν πόλιν τὴν ἡμετέραν αἰτίαν γεγενῆσθαι καὶ δικαίως ἂν αὐτῆς τῆν ἡγεμονίαν εἶναι, μετὰ δὲ ταῦτ' ἤδη τινὲς ἡμῶν κατηγοροῦσιν, ὡς ἐπειδὴ τὴν ἀρχὴν τῆς θαλάττης παρελάβομεν, πολλῶν κακῶν αἴτιοι τοῖς Ἕλλησι κατέστημεν, καὶ τόν τε Μηλίων ἀνδραποδισμὸν καὶ τὸν Σκιωναίων ὀλεθρον ἐν τούτοις τοῖς λόγοις ἡμῖν προφέρουσιν. ἐγὼ δ' ἡγοῦμαι πρῶτον μὲν οὐδὲν εἶναι τοῦτο σημεῖον, ὡς κακῶς ἤρχομεν, εἴ τινες τῶν πολεμησάντων ἡμῖν σφόδρα φαίνονται κολασθέντες, ἀλλὰ πολὺ τόδε μεῖζον τεκμήριον, ὡς καλῶς διῳκοῦμεν τὰ τῶν συμμάχων, ὅτι τῶν πόλεων τῶν ὑφ' ἡμῖν οὐδεμία ταύταις ταῖς συμφοραῖς περιέπεσεν.

(C) Ὧν ἄξιον ἐνθυμηθέντας ἀγανακτῆσαι μὲν ἐπὶ τοῖς παροῦσι, ποθέσαι δὲ τὴν ἡγεμονίαν τὴν ἡμετέραν, μέμψασθαι δὲ Λακεδαιμονίοις, ὅτι τὴν μὲν ἀρχὴν εἰς τὸν πόλεμον κατέστησαν ὡς ἐλευθερώσοντες τοὺς Ἕλληνας, ἐπὶ δὲ τελευτῆς οὕτω πολλοὺς αὐτῶν ἐκδότους ἐποίησαν, καὶ τῆς μὲν ἡμετέρας πόλεως τοὺς Ἴωνας ἀπέστησαν, ἐξ ἧς ἀπῴκησαν καὶ δι' ἣν πολλάκις ἐσώθησαν, τοῖς δὲ βαρβάροις αὐτοὺς ἐξέδοσαν, ὧν ἀκόντων τὴν χώραν ἔχουσι καὶ πρὸς οὓς οὐδὲ πώποτ' ἐπαύσαντο πολεμοῦντες. καὶ τότε μὲν ἠγανάκτουν, ὅθ' ἡμεῖς νομίμως ἐπάρχειν τινῶν ἠξιοῦμεν· νῦν δ' εἰς τοιαύτην δουλείαν καθεστώτων οὐδὲν φροντίζουσιν αὐτῶν, οἷς οὐκ ἐξαρκεῖ δασμολογεῖσθαι καὶ τὰς ἀκροπόλεις ὁρᾶν ὑπὸ τῶν ἐχθρῶν κατεχομένας, ἀλλὰ πρὸς ταῖς κοιναῖς συμφοραῖς καὶ τοῖς σώμασι δεινότερα πάσχουσι τῶν παρ' ἡμῖν ἀργυρωνήτων· οὐδεὶς γὰρ ἡμῶν οὕτως αἰκίζεται τοὺς οἰκέτας ὡς ἐκεῖνοι τοὺς ἐλευθέρους κολάζουσιν. μέγιστον δὲ τῶν κακῶν, ὅταν ὑπὲρ αὐτῆς τῆς δουλείας ἀναγκάζωνται συστρατεύσθαι, καὶ πολεμεῖν τοῖς ἐλευθέροις ἀξιοῦσιν εἶναι, καὶ τοιούτους κινδύνους ὑπομένειν, ἐν οἷς ἡττηθέντες μὲν παραχρῆμα διαφθαρήσονται, κατορθώσαντες δὲ μᾶλλον εἰς τὸν λοιπὸν δουλεύσουσιν.

2. Construe, and explain the grammatical construction of the following extracts, and point out any peculiarities that occur:—

(*a*) ἐλπίζων τοσοῦτον διοίσειν ὥστε τοῖς ἄλλοις μηδὲν δοκεῖν εἰρῆσθαι περὶ αὐτῶν. (*b*) τινὲς ἐπιτιμῶσι τῶν λόγων τοῖς ὑπὲρ τοὺς ἰδιώτας ἔχουσι. (*c*) ἀλλὰ τῶν αὐτῶν τοῖς ἐκ τῶν θεῶν γεγενόσι ἀξιώθειεν. (*d*) οἱ δὲ ἠπείχθησαν φθῆναι συμβαλόντες πρὶν ἐλθεῖν τοὺς βοηθήσοντας.

3. Parse the following verbs, and point out their component parts:—διοίσειν, ἐνθυμηθῆναι, διατριφθεντος, προειρήσθω, διειλήφασιν, διενεγκοῦσι, κατέδειξε, συνειδυῖα, φθήσονται, καταγνῶναι.

4. Give the exact meaning and derivation of the following words:—προύργαίτερον, ὑπογνίου, δυσπείστως, μιγάδες, ἀχρήστως, ἀνυποστάτων, λυμεῶνες, καταποντισταί, ἀργυρωνήτων, ἀκέραιος, πλῆθος, ἀνάστατος.

5. Write explanatory notes on the following words and expressions:—πανηγύρεις. σοφιστῶν. γνησίως γεγόναμεν. αὐτόχθονες ὄντες. τῶν δεκαρχιῶν. μετοικεῖν. πλεῦσαι μὲν διὰ τῆς ἠπείρου. πεζεῦσαι δὲ διὰ τῆς θαλάττης. τοῖς δημόσια θαπτομένοις. τοῖς μεμνημένοις.

6. (*a*) Give an account of the events referred to in ext. (B). (*b*) ἑβδομήκοντ' ἔτη:—What period? (*c*) Ext. (C),—κατέστησαν, what Tense and why? (*d*) Give the syntactical import of the Participles ἡττηθέντες and κατορθώσαντες.

7. Name the case and gender, and decline each of the following:—χείρους, ἄστη πλήθους, θεάματα, ἔθος.

8. What is the correct use of the particles μὲν and δὲ to indicate persons or things previously referred to? Illustrate by the correct usage in Latin and in English. (*b*) State the difference in the use of οὐ and μή, and explain the use and force of the combination οὐ μή. (*c*) What cases do the following propositions severally govern, and with what differences of meaning—διά, περί, ὑπό, παρά? Cite illustrations if you can from this oration.

9. Write a sketch of the life of Isocrates. (*b*) Point out the leading characteristics, grammatical and rhetorical, of his style. (*c*) State briefly the argument of the Panegyricus, and give its proximate date.

10. Name the four great Hellenic πανηγίρεις with the places and times of their celebration, and the deities in whose honour they were held.

THIRD YEAR.

GREEK.—AESCHYLUS.—PROMETHEUS VINCTUS.

THURSDAY, APRIL 6TH:—MORNING, 9 TO 12.

Examiner.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A)
ΩΚ. οὔκουν, Προμηθεῦ, τοῦτο γιγνώσκεις ὅτι
ὀργῆς ζεούσης εἰσὶν ἰατροὶ λόγοι;
ΠΡ. ἐάν τις ἐν καιρῷ γε μαλθάσσῃ κέαρ
καὶ μὴ σφριγῶντα θυμὸν ἰσχναίνῃ βίᾳ.
ΩΚ. ἐν τῷ προμηθεῖσθαι δὲ καὶ τολμᾶν ἅ νιν
ὁρᾷς ἐνοῦσαν ζημίαν; δίδασκέ με.
ΠΡ. μόχθον περισσὸν κουφόνουν τ' εὐηθίαν.
ΩΚ. ἐμὲ μὲν τήνδε τὴν νόσον νοσεῖν, ἐπεὶ
κέρδιστον εὖ φρονοῦντα μὴ δοκεῖν φρονεῖν.
ΠΡ. ἐμὸν δοκήσει τἀμπλάκημ' εἶναι τόδε.
ΩΚ. σαφῶς μ' ἐς οἶκον σὸς λόγος στέλλει πάλιν.
ΠΡ. μὴ γάρ σε θρῆνος οὐμὸς εἰς ἐχθραν βάλῃ.
ΩΚ. ᾧ τῷ νέον θακοῦντι παγκρατεῖς ἕδρας;
ΠΡ. τούτου φυλάσσου μή ποτ' ἀχθεσθῇ κέαρ.
ΩΚ. ἡ σῇ, Προμηθεῦ, ξυμφορὰ διδάσκαλος.
ΠΡ. στέλλου, κομίζου, σῶζε τὸν παρόντα νοῦν.

(B)
ΠΡ. τὴν πρίν γε χρείαν ἠνύσασθ' ἐμοῦ πάρα
κούφως· μαθεῖν γὰρ τῆσδε πρῶτ' ἐχρῄζετε
τὸν ἀμφ' ἑαυτῆς ἄθλον ἐξηγουμένης·
τὰ λοιπὰ νῦν ἀκούσαθ', οἷα χρὴ πάθη
τλῆναι πρὸς Ἥρας τήνδε τὴν νεάνιδα.
σύ τ' Ἰνάχειον σπέρμα, τοὺς ἐμοὺς λόγους
θυμῷ βάλ', ὡς ἂν τέρματ' ἐκμάθῃς ὁδοῦ.
πρῶτον μὲν ἑνθένδ' ἡλίου πρὸς ἀντολὰς
στρέψασα σαυτὴν στεῖχ' ἀνηρότοις γύας·
Σκύθας δ' ἀφίξει νομάδας, οἳ πλεκτὰς στέγας
πεδάρσιοι ναίουσ' ἐπ' εὐκύκλοις ὄχοις,
ἐκηβόλοις τόξοισιν ἐξηρτυμένοι·
οἷς μὴ πελάζειν, ἀλλ' ἀλιστόνοις πόδας
χρίμπτουσα ῥαχίαισιν ἐκπερᾶν χθόνα.
λαιᾶς δὲ χειρὸς οἱ σιδηροτέκτονες
οἰκοῦσι Χάλυβες, οὓς φυλάξασθαί σε χρή.
ἀνήμεροι γὰρ οὐδὲ πρόσπλατοι ξένοις.

(C) XO. ἄλλο τι φώνει καὶ παραμυθοῦ μ'
ὅ τι καὶ πείσεις· οὐ γὰρ δὴ που
τοῦτό γε τλητὸν παρέσυρας ἔπος
πῶς με κελεύεις κακότητ' ἀσκεῖν;
μετὰ τοῦδ' ὅ τι χρὴ πάσχειν ἐθέλω· 5
τοὺς προδότας γὰρ μισεῖν ἐμαθον,
κοὐκ ἔστι νόσος
τῆσδ' ἧντιν' ἀπέπτυσα μᾶλλον.
EP. ἀλλ' οὖν μέμνησθ' ἀγὼ προλέγω·
μηδὲ πρὸς ἀτης θηραθεῖσαι 10
μέμψησθε τύχην, μηδέ ποτ' εἰπηθ'
ὡς Ζεὺς ὑμᾶς εἰς ἀπρόοπτον
πῆμ' εἰσέβαλεν·
μὴ δῆτ', αυταὶ δ' ὑμᾶς αὐτάς.
εἰδυῖαι γὰρ κοὐκ ἐξαίφνης 15
οὐδὲ λαθραίως
εἰς ἀπέραντον δίκτυον ἀτης
ἐμπλεχθήσεσθ' ὑπ' ἀνοίας.

2. (*a*) The Prometheus Vinctus was the second drama of a Trilogy:—Give the Greek titles of the other two and their subjects. (*b*) Narrate the briefly the legend of Prometheus. (*c*) On what grounds has it been supposed by some that Æschylus composed this Drama with a political object in view?

3. Give the meaning of the following terms:—*βρώσιμον, χριστόν, πιστόν, φαρμάκων, κληδόνας δυσκρίτους, ἐνοδίους συμβόλους, δεξιοί, εὐωνύμους, σπλάγχνων· λειότητα καὶ χροιάν, φλογωπὰ σήματα.* (*b*) *Μοῖραι τρίμορφοι μνήμονες Ἐρινύες*:—explain and give their names. (*c*) *Σκύθην ἐς οἶμον*:—explain the geographical reference, and state where the scene of the play is laid. (*d*) In ext. (B) for *στρέψασα* Hermann gives *τρέψασα*:—state why, and defend the reading of the text.

4. Carefully construe the following from the above extracts:—(*a*) *ὀργῆς ζεούσης.* (*b*) *τήνδε τὴν νόσον.* (*c*) *τᾷ νέον θακοῦντι.* (*d*) *ἀχθεσθῆ κέαρ.* (*e*) *τῆσδε ἐξηγουμένης.* (*f*) *λειᾶς χειρός.* (*g*) *ξένοις.*

5. State as accurately as you can, the meaning, and give the derivation of the following words:—*λεωργόν, ταχύπτεροι, ἀπάτου, κνώδαλα, ἄϊστον, ἀστεργάνορα, ἀνήμεροι, ἀπαντλῆσαι, ἀρθμόν, πέδοι, ἰότατι, ἀκραγεῖς.*

6. (*a*) Explain the dialect of the following, severally, and give the commonly received Attic equivalents of them:—*πεδαρσίοις, μᾶσσον, ἀρμοῖ, δᾶ, πωλεύμεναι, ἄλευ, ἀχέτας, εἰβομένα.* (*b*) Parse the following:—*βᾶσαι, φύλαξαι, προσῆξε, ἐδωρήσω, ὑράξαι, παρεξίασι, λέλακε, ἐπηύρου, προσέπτα, ἐκτικείη, οἰκτιεῖς*—(Explain the formation).

7. Explain the grammatical usages of the following:—(*a*) *πολλοῦ καὶ τοῦ παιτὸς ἐλλείπω.* (*b*) *οὐκ ἐναντιώσομαι τὸ μὴ οὐ γεγωνεῖν.* (*c*) *ὡς ὄντων τῶνδέ σοι μαθεῖν πάρα.* (*d*) *ὅπως * * * ἀπηλλάγην.* (*e*) *οὔκουν πόροις ἂν τήνδε δωρεὰν ἐμοί.*

8. With what vowels can elision take place? Supply the elided vowels in *βούλεν', ἥδοι', τιν', αὐλῶν'.* (*b*) Resolve the following crases: —*χἠ, χὦσα, κεἰς, μἠχοιμι, οὐκ, οὐμοί.* (*c*) Distinguish between the use of the Participle with the Article and without it.

9. (*a*) Name, and write down the scheme of the metre of ext. (C). (*b*) Scan vss. 9 to 14, inclusive.

B.A. ORDINARY EXAMINATION, 1876.

THURSDAY, APRIL 6TH:—MORNING, 9 TO 12.

GREEK. { PLATO.—DE REPUBLICA, LIB. I.
{ ÆSCHYLUS.—SEPTEM CONTRA THEBAS.

Examiner.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Ἔστιν ἄρα, ἦν δ' ἐγώ, δικαίου ἀνδρὸς βλάπτειν καὶ ὁντινοῦν ἀνθρώπων; Καὶ πάνυ γε, ἔφη, τούς γε πονηρούς τε καὶ ἐχθροὺς δεῖ βλάπτειν. Βλαπτόμενοι δ' ἵπποι βελτίους ἢ χείρους γίγνονται; Χείρους. Ἆρα εἰς τὴν τῶν κυνῶν ἀρετὴν ἢ εἰς τὴν τῶν ἵππων; Εἰς τὴν τῶν ἵππων. Ἀρ' οὖν καὶ κύνες βλαπτόμενοι χείρους γίγνονται εἰς τὴν τῶν κυνῶν, ἀλλ' οὐκ εἰς τὴν τῶν ἵππων ἀρετήν; Ἀνάγκη. Ἀνθρώπους δέ, ὦ ἑταῖρε, μὴ οὕτω φῶμεν, βλαπτομένους εἰς τὴν ἀνθρωπείαν ἀρετὴν χείρους γίγνεσθαι; Πάνυ μὲν οὖν. Ἀλλ' ἡ δικαιοσύνη οὐκ ἀνθρωπεία ἀρετή; Καὶ τοῦτ' ἀνάγκη. Καὶ τοὺς βλαπτομένους ἄρα, ὦ φίλε, τῶν ἀνθρώπων ἀνάγκη ἀδικωτέρους γίγνεσθαι. Ἔοικεν. Ἆρ' οὖν τῇ μουσικῇ οἱ μουσικοὶ ἀμούσους δύνανται ποιεῖν; Ἀδύνατον. Ἀλλὰ τῇ ἱππικῇ οἱ ἱππικοὶ ἀφίππους; Οὐκ ἔστιν. Ἀλλὰ τῇ δικαιοσύνῃ δὴ οἱ δίκαιοι ἀδίκους; ἢ καὶ ξυλλήβδην ἀρετῇ οἱ ἀγαθοὶ κακούς; Ἀλλὰ ἀδύνατον. Οὐ γὰρ θερμότητος, οἶμαι, ἔργον ψύχειν, ἀλλὰ τοῦ ἐναντίου. Ναί. Οὐδὲ ξηρότητος ὑγραίνειν, ἀλλὰ τοῦ ἐναντίου. Πάνυ γε. Οὐδὲ δὴ τοῦ ἀγαθοῦ βλάπτειν, ἀλλὰ τοῦ ἐναντίου. Φαίνεται. Ὁ δέ γε δίκαιος ἀγαθός; Πάνυ γε. Οὐκ ἄρα τοῦ δικαίου βλάπτειν ἔργον, ὦ Πολέμαρχε, οὔτε φίλον οὔτ' ἄλλον οὐδένα, ἀλλὰ τοῦ ἐναντίου, τοῦ ἀδίκου. Παντάπασί μοι δοκεῖς ἀληθῆ λέγειν, ἔφη, ὦ Σώκρατες.

(B) Εὖ γε σὺ ποιῶν· ἀλλὰ δὴ καὶ τόδε μοι χάρισαι καὶ λέγε· δοκεῖς ἂν ἡ πόλιν ἢ στρατόπεδον ἢ λῃστὰς ἢ κλέπτας ἢ ἄλλο τι ἔθνος, ὅσα κοινῇ ἐπί τι ἔρχεται ἀδίκως, πρᾶξαι ἂν τι δύνασθαι, εἰ ἀδικοῖεν ἀλλήλους; Οὐ δῆτα, ἦ δ' ὅς. Τί δ' εἰ μὴ ἀδικοῖεν; οὐ μᾶλλον; Πάνυ γε. Στάσεις γάρ που, ὦ Θρασύμαχε, ἡ

γε ἀδικία καὶ μίση καὶ μάχας ἐν ἀλλήλοις παρέχει, ἡ δὲ δικαιοσύνη ὁμόνοιαν καὶ φιλίαν· ἢ γάρ; Ἔστω, ἦ δ' ὅς, ἵνα σοι μὴ διαφέρωμαι. Ἀλλ' εὖ γε σὺ ποιῶν, ὦ ἄριστε. τόδε δέ μοι λέγε· ἆρα εἰ τοῦτο ἔργον ἀδικίας, μῖσος ἐμποιεῖν ὅπου ἂν ἐνῇ, οὐ καὶ ἐν ἐλεθέροις τε καὶ δούλοις ἐγγιγνομένη μισεῖν ποιήσει ἀλλήλους καὶ στασιάζειν καὶ ἀδυνάτους εἶναι κοινῇ μετ ἀλλήλων πράττειν; Πάνυ γε. Τί δέ; ἂν ἐν δυοῖν ἐγγένηται, οὐ διοίσονται καὶ μισήσουσι καὶ ἐχθροὶ ἐσονται ἀλλήλοις τε καὶ τοῖς δικαίοις; Ἔσονται, ἔφη. Ἐὰν δὲ δὴ, ὦ θαυμάσιε, ἐν ἑνὶ ἐγγένηται ἀδικία, μῶν μὴ ἀπολεῖ τὴν αὐτῆς δύναμιν, ἢ οὐδὲν ἧττον ἕξει: Μηδὲν ἧττον ἐχέτω, ἔφη.

2. Write explanatory notes on the following:—(*a*) προσευξόμενος τῇ θεῷ καὶ τὴν ἑορτὴν βουλόμενος θεάσασθαι, ἅτε νῦν πρῶτον ἀγοντες. (*b*) λαμπὰς ἔσται πρὸς ἑσπέραν ἀφ' ἵππων. (*c*) ἡ εἰωθυῖα εἰρωνεία Σωκράτους. (*d*) ἐν τοῖς Βενδιδείοις. (*e*) ὁ παγκρατιαστής.

3. Give as accurately as you can the import of the following particles, or combinations of particles, as used in dialogue:—γέ, μέντοι, ἄρα, ἆρα, οὐκοῦν, οὔκουν, ἦ καί, ὁή, καὶ δὴ καί, νῦν δή, πάνυ μὲν οὖν, νῦν δέ.

4. Explain the construction of (*a*) ἐνταῦθα ἤδη εἰ τῆς ἡλικίας. (*b*) ἐπειδάν τις ἐγγὺς ᾖ τοῦ οἴεσθαι τελευτήσειν. (*c*) οὐδέν σου παρίεμαι· ἀλλ' οὐ ηὴ οἷός τ' ἦς. (*d*) οὐκ ἀπεσχόμην τὸ μὴ οὐκ ἐπὶ τοῦτο ἐλθεῖν ἀπ' ἐκείνου.

5. Give an account of the life and writings of Plato, and write a synopsis of of the argument of this book.

6. Translate:—

(C) καὶ νῦν πολίταις τάσδε διαδρόμους φυγὰς
θεῖσαι διερροθήσατ' ἀψυχον κάκην·
τὰ τῶν θύραθεν δ' ὡς ἄριστ' ὀφέλλετε,
αὐτοὶ δ' ὑφ' αὑτῶν ἐνδοθεν πορθούμεθα.
τοιαῦτά τἂν γνναιξὶ συνναίων ἔχοις
κεἰ μή τις ἀρχῆς τῆς ἐμῆς ἀκούσεται,
ἀνὴρ γυνή τε χὤ τι τῶν μεταίχμιον,
ψῆφος κατ' αὐτῶν ὀλεθρία βουλεύσεται,
λευστῆρα δῆμον δ' οὔ τι μὴ φύγῃ μόρον.
μέλει γὰρ ἀνδρὶ, μὴ γυνὴ βουλενέτω,
τἄξωθεν· ἐνδον δ' οὖσα μὴ βλάβην τίθει.
ἠκουσας ἢ οὐκ ἠκουσας, ἢ κωφῇ λέγω;

ΧΟ. ὦ φίλον Οἰδίπου τέκος ἐδεισ' ἀκού-
σασα τὸν ἁρματόκτυπον ὀτοβον ὀτοβον.
ὅτε τε σύριγγες ἐκλαγξαν ἐλίτροχοι,
ἱππικῶν τ' ἄπνουν πηδαλίων δία
στόμια πυριγενετᾶν χαλινῶν.

ET. *τί οὖν; ὁ ναύτης ἆρα μὴ 'ς πρῷραν φυγὼν*
πρύμνηθεν εὖρε μηχανὴν σωτηρίας,
νεὼς καμούσης ποντίῳ πρὸς κύματι;

(D) ΧΟ. *τί δ' ἐστὶ πρᾶγος νεόκοτον πόλει παρόν;*
ΑΓ. *ἀνδρες τεθνᾶσιν ἐκ χερῶν αὐτοκτόνων.*
ΧΟ. *τίνες; τί δ' εἶπας; παραφρονῶ φόβῳ λόγου*
ΑΓ. *φρονοῦσα νῦν ἄκουσον, Οἰδίπου γένος.*
ΧΟ *οἰ 'γὼ τάλαινα, μάντις εἰμὶ τῶν κακῶν.*
ΑΓ. *οὐδ' ἀμφιλέκτως μὴν κατεσποδημένοι.*
ΧΟ. *ἐκεῖθι κἦλθον; βαρέα δ' οὖν ὅμως φράσον.*
ΑΓ. *οὕτως ἀδελφαῖς χερσὶν ἡναίροντ' ἀγαν.*
ΧΟ. *οὕτως ὁ δαίμων κοινὸς ἦν ἀμφοιν ἅμα.*
ΑΓ. *αὐτὸς δ' ἀναλοῖ δῆτα δύσποτμον γένος.*
τοιαῦτα χαίρειν καὶ δακνύεσθαι πάρα·
πόλιν μὲν εὖ πράσσουσαν, οἱ δ' ἐπιστάται,
διασσὼ στρατηγὼ διέλαχον σφυρηλάτῳ
κύθῃ σιδήρῳ κτημάτων παμπησίαν.
ἔξουσι δ' ἣν λάβωσιν ἐν ταφῇ χθονὸς,
πατρὸς κατ' εὐχὰς δυσπότμους φορούμενοι.
πόλις σέσωσται· βασιλέοιν δ' ὁμοσπόροιν
πέπωκεν αἷμα γαῖ' ὑπ' ἀλλήλων φόνῳ.

7. Parse the following verbs, noting any peculiarities:—*ἑωράκη, ἐπεκτήσω, ἠνίξατο, κεκάσθαι, ἡναίροντο, κεκλήσει, ἐσθορεῖν, ἠρθην, ἔλακον, τάγευσαι, σοῦσθε.*

8. Derive and give the meaning of:—*ἑτεροβάγμονι, γενῦν, ἐφηβήσαντα, ἐπακτόν, μέτοικος, ἀργός, πύστις, ἄνη, ξυνά, λευστῆρα, δουρίπηχθ', ἀρτίκολλον.*

9. Distinguish between the following variants:—(1) *μητέρων τεθραμμέναι—τεθρυμμέναι.* (2) *αἰχμὴν—αἰχμῆς πετρῶν—πέτμων—προβλήματα.*

10. Write down the scale of the *Iambic Senarius*, and also of the *Anapaestic Dimeter Acatalectic.*

FIRST YEAR.

LATIN.—CICERO.—SELECT LETTERS.

TUESDAY, APRIL 4TH:—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate, expanding and translating the superscriptions:—

CICERO ATTICO SAL.

(A) L. Iulio Caesare C. Marcio Figulo consulibus filiolo me auctum scito salva Terentia. Abs te tam diu nihil litterarum? Ego de meis ad

te rationibus scripsi antea diligenter, hoc tempore Catilinam, competitorem nostrum, defendere cogitamus; iudices habemus, quos voluimus, summa accusatoris voluntate. Spero, si absolutus erit, coniunctiorem illum nobis fore in ratione petitionis; sin aliter acciderit, humaniter feremus. Tuo adventu nobis opus est maturo; nam prorsus summa hominum est opinio tuos familiares, nobiles homines, adversarios honori nostro fore: ad eorum voluntatem mihi conciliandam maximo te mihi usui fore video. Qua re Ianuario mense, ut constituisti, cura ut Romae sis.

(B) Pr. Nonas Sextilis Dyrrhachio sum profectus, ipso illo die, quo lex est lata de nobis; Brundisium veni Nonis Sextilibus: ibi mihi Tulliola mea fuit praesto natali suo ipso die, qui casu idem natalis erat et Brundisinae coloniae et tuae vicinae Salutis; quae res animadversa *a* multitudine summa Brundisinorum gratulatione celebrata est. Ante diem VI. Idus Sextiles cognovi, [cum Brundisii essem,] litteris Quinti, mirifico studio omnium aetatum atque ordinum, incredibili concursu Italiae legem comitiis centuriatis esse perlatam: inde a Brundisinis honestissimis ornatus iter ita feci, ut undique ad me cum gratulatione legati convenerint. Ad urbem ita veni, ut nemo ullius ordinis homo nomenclatori notus fuerit, qui mihi obviam non venerit, praeter eos inimicos, quibus id ipsum [se inimicos esse] non liceret aut dissimulare aut negare. Cum venissem ad portam Capenam, gradus templorum ab infima plebe completi erant, a qua plausu maximo cum esset mihi gratulatio significata, similis et frequentia et plausus me usque ad Capitolium celebravit, in foroque et in ipso Capitolio miranda multitudo fuit.

CICERO CAESARI IMP. S. D.

(C) Vide, quam mihi persuaserim te me esse alterum non modo in iis rebus, quae ad me ipsum, sed etiam in iis, quae ad meos pertinent: C. Trebatium cogitaram, quocumque exirem, mecum ducere, ut eum meis omnibus studiis, beneficiis quam ornatissimum domum reducerem. Sed postea quam et Pompeii commoratio diuturnior erat, quam putaram, et mea quaedam tibi non ignota dubitatio aut impedire profectionem meam videbatur aut certe tardare, vide, quid mihi sumpserim: coepi velle ea Trebatium exspectare a te, quae sperasset a me, neque mehercule minus ei prolixe de tua voluntate promisi, quam eram solitus de mea polliceri. Casus vero mirificus quidam intervenit quasi vel testis opinionis meae vel sponsor humanitatis tuae: nam cum de hoc ipso Trebatio cum Balbo nostro loquerer accuratius domi meae, litterae mihi dantur a te, quibus in extremis scriptum erat: 'M. Rufum, quem mihi commendas, vel regem Galliae faciam, vel hunc Leptae delega, si vis: tu ad me alium mitte, quem ornem.'

2. *a*) Give the date of ext. (A) and a short account of the events referred to. (*b*) On what occasion was ext. (B) written? (*c*) In ext. (C) explain the following references:—(1) Quocumque exirem. (2) Pompeii commoratio. (3) Vel regem Galliae faciam, vel hunc Leptae delega.

3. Translate and explain carefully the Syntax of the following extt.:—(*a*)

Hunc, mi Caesar, sic velim omni tua comitate complectare, ut omnia, quae per me possis adduci ut in meos conferre velis, in unum hunc conferas. (*b*) Aviam tuam scito desiderio tui mortuam esse. (*c*) Quibus (officiis) si quando non mutue respondetur. (*d*) Qua re etiam legationes rejectum iri puto.

4. Write down the exact meaning, and give the etymology of the following:—putidiusculus, lecticula, lectiunculis, creterrarum, leporis, leporis annona, discidium, nomenclator, lustrum.

5. (*a.*) Expand and translate the following, and express the dates according to our method of reckoning:—(1) A. d. xv. Kal. Novembr. (2) D. a. d. III. Non. Oct. (3) Idibus Sextilibus. (*b*) HS. centiens:—explain the formula, and give the value of the sum named. Denarius, cistophorus:—explain. (c) Portam Capenam; Vicinæ Salutis; Dyrrhachium; Brundisinae coloniae:—define the geographical positions of these respectively.

6. Parse the following:—Moveare, vererere, comperisse, delata sunt, abisset, prodesset, luxerunt, deliquisse, exegero, decesse, relaxaro, cogitaram.

7. Write down the *Nom. Sing.* and *Plu.* of:—lepore, arbitratu, otii, jure, locis, praesentibus, superficiem, dolori.

8 (*a*) Decline in the *Singular*:—tellus, genus, servitus, nux, domus; and in the *plural*:—nix, poema, lapis, iter, bos. (*b*) Give the *Gen. Sing.* and *Dat. Plu.* of:—aper, latus, manus, filia, artus, scurra. (c) Write down *Perf.* and *Supine* of:—do, faveo, tego, parco.

9. (*a*) What cases do the following words severally take after them:—peritus, potior (*adj.* and *verb*), interest, consulo, utilis, fungor. (*b*) Express in Latin, variously,—What will become (*fio*) of my Tullia? Give the leading constructions with *opus est*.

INTERMEDIATE EXAMINATION, 1876.

TUESDAY, APRIL 4TH:—MORNING, 9 TO 12.

LATIN.—TACITUS.—GERMANIA AND AGRICOLA.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Celebrant carminibus antiquis, quod unum apud illos memoriae et annalium genus est, Tuistonem deum terra editum et filium Mannum, originem gentis conditoresque. Manno tris filios adsignant, e quorum nominibus proximi Oceano Ingaevones, medii Herminones, ceteri Istaevones vocentur. quidam, ut in licentia vetustatis, pluris deo ortos plurisque gentis appellationes, Marsos Gambrivios Suebos Vandalios adfirmant, eaque vera et antiqua nomina. ceterum Germaniae vocabulum recens et

nuper additum, quoniam qui primi Rhenum transgressi Gallos expulerint, ut nunc Tungri, tunc Germani vocati sint: ita nationis nomen, non gentis, evaluisse paulatim, ut omnes primum a victore ob metum, mox etiam a se ipsis invento nomine Germani vocarentur.

(B) Nullas Germanorum populis urbes habitari satis notum est, ne pati quidem inter se iunctas sedes. colunt discreti ac diversi, ut fons, ut campus, ut nemus placuit. vicos locant non in nostrum morem connexis et cohaerentibus aedificiis: suam quisque domum spatio circumdat, sive adversus casus ignis remedium sive inscitia aedificandi. ne caementorum quidem apud illos aut tegularum usus: materia ad omnia utuntur informi et citra speciem aut delectationem. quaedam loca diligentius inlinunt terra ita pura ac splendente, ut picturam ac liniamenta colorum imitetur. solent et subterraneos specus aperire eosque multo insuper fimo onerant, suffugium hiemi et receptaculum frugibus, quia rigorem frigorum eius modi locis molliunt, et si quando hostis advenit, aperta populatur, abdita autem et defossa aut ignorantur aut eo ipso fallunt quod quaerenda sunt.

(C) Prima castrorum rudimenta in Britannia Suetonio Paulino, diligenti ac moderato duci, adprobavit, electus quem contubernio aestimaret. nec Agricola licenter, more invenum qui militiam in lasciviam vertunt, neque segniter ad voluptates et commeatus titulum tribunatus et inscitiam rettulit: sed noscere provinciam, nosci exercitui, discere a peritis, sequi optimos, nihil adpetere in iactationem, nihil ob formidinem recusare simulque et anxius et intentus agere. non sane alias exercitatior magisque in ambiguo Britannia fuit: trucidati veterani, incensae coloniae, intercepti exercitus: tum de salute, mox de victoria certavere.

(D) Tertius expeditionum annus novas gentis aperuit, vastatis usque ad Tanaum (aestuario nomen est) nationibus. qua formidine territi hostes quamquam conflictatum saevis tempestatibus exercitum lacessere non ausi; ponendisque insuper castellis spatium fuit. adnotabant periti non alium ducem opportunitates locorum sapientius legisse; nullum ab

Agricola positum castellum aut vi hostium expugnatum aut pactione ac fuga desertum; [crebrae eruptiones] nam adversus moras obsidionis annuis copiis firmabantur. ita intrepida ibi hiems et sibi quisque praesidio, irritis hostibus eoque desperantibus, quia soliti plerumque damna aestatis hibernis eventibus pensare tum aestate atque hieme iuxta pellebantur.

2. Explain the use of the oblique cases in:—(*a*) Patiens *frugum*. (*b*) *admiratione* praesunt. (*c*) Expetuntur *legationibus*. (*d*) Aram *Ulixi* consecratum. (*e*) Monstratus *fati* Vespasianus. (*f*) Abeunti concedere *moris*. (Note differences of interpretation of any.)

3. (1) Illustrate the following constructions from the Greek:—(*a*) Et quibus bellum volentibus. (*b*) Est videre argentea vasa. (*c*) In universum aestimanti. (2) The following various readings occur; translate accord-

ing to each; and show which are, severally, to be preferred :—(*a*) *Septa—septae* pudicitia agunt. (*b*) *Ludere—luere—vendere* pretio. (*c*) Secretum *ut—et—vel* silentium non timeres. (*d*) Vastatis usque ad *Tanaum—Taum.*

4. Write short explanatory notes, geographical, giving modern names where you can, on the following :—(1) Veteranorum colonia. (2) Monam insulam. (3) Brigantes, Silures. Ordovices. (4) Clota et Bodotria. (5) Orcadas. (6) Thyle. (7) Rubro mari. (8) Tanaum. (9) Adversus Oceanus.

5. ( ) "Colunt discreti ac diversi, ut fons, ut campus, ut nemus placuit": —Cite modern names of places in illustration of this statement. (*b*) Explain :—(1) Nec *jurisdictio* obvenerat. (2) Filium ante *sublatum.* (3) Contractis legionum *vexillis.*

6. Parse the following :—invasere, texissent, ascivit, ortos, popularetur, infecros, satis, indecŏris, indecōris, secretum, lauti.

7. (*a*) State as exactly as you can the difference in meaning between :— connexis et cohaerentibus; discreti ac diversi; infinita aut libera; laboris atque operum; scelera et flagitia; gens et natio; cassis aut galea; familiae et propinquitates; lucos ac nemora; quaestum aut mercedem. (*b*) Give the exact import of the propositions used in the following expressions :—ob metum, citra speciem, juxtra libertatem, in haec munera uxor accipitur, ex magnitudine Deorum arbitrantur.

8. An account of the life and writings of Tacitus. On what grounds has it been assumed that he visited Germany?

THIRD YEAR.

LATIN.—TERENCE.—ADELPHI.

FRIDAY, APRIL 7TH :—MORNING, 9 TO 12.

Examiner,..... .....REV. GEORGE CORNISH, LL.D.

1. Translate into English :—

(A)

SA. Obsecro, populares, ferte misero atque innocenti auxilium :
Subuenite inopi. AE. Otiose, nunciam ilico hic consiste.
Quid respectas? nil periclist: numquam, dum ego adero, hic te tanget.
SA. Ego istam inuitis omnibus.
AE. Quamquamst scelestus, non committet hodie umquam iterum ut uapulet.
SA. Aeschine, audi, ne te ignarum fuisse dicas meorum morum.
Leno ego sum. AE. Scio. SA. At ita, ut usquam fuit fide quisquam optuma.
Tu quod te posterius purges, hanc iniuriam mihi nolle

Factam esse, huius non faciam. crede hoc, ego meum ius persequar:
Neque tu uerbis solues umquam, quod mihi re male feceris.
Noui ego uostra haec 'nollem factum: dabitur ius iurandum, indignum
Te esse iniuria hac', indignis quom egomet sim acceptus modis.
Ae. Abi prae strenue ac foris aperi. Sa. Ceterum hoc nili facis.
Ae. I intro nunciam. Sa. At enim non sinam. Ae. Accede illuc, Parmeno:
Nimium istoc abisti: hic propter hunc adsiste: em, sic uolo.
Caue nunciam oculos a meis oculis quoquam demoueas tuos,
Ne mora sit; si innuerim, quin pugnus continuo in mala haereat.

(B)

De. Quid autem? Sy. Adortus iurgiost fratrem apud forum
De psaltria istac. De. Ain uero? Sy. Ah, nil reticuit.
Nam ut numerabatur forte argentum, interuenit
Homo de inprouiso: coepit clamare 'o Aeschine,
Haecine flagitia facere te! haec te admittere
Indigna genere nostro!' De. Oh, lacrumo gaudio,
Sy. 'Non tu hoc argentum perdis, sed uitam tuam.'
De. Saluos sit: spero, est similis maiorum suom. Sy. Hui.
De. Syre, praeceptorum plenust istorum ille. Sy. Phy:
Domi habuit unde disceret. De. Fit sedulo:
Nil praetermitto: consuefacio: denique
Inspicere tamquam in speculum in uitas omnium
Iubeo atque ex aliis sumere exemplum sibi.
'Hoc facito.' Sy. Recte sane. De. 'Hoc fugito.' Sy. Callide.
De. 'Hoc laudist.' Sy. Istaec res est. De. 'Hoc uitio datur.'
Sy. Probissume. De. Porro autem...Sy. Non hercle otiumst
Nunc mi auscultandi. piscis ex sententia
Nactus sum: ei mihi ne corrumpantur cautiost.

(C)

Sy. Edepol, Syrisce, te curasti molliter
Lauteque munus administrasti tuom.
Abi. sed postquam intus sum omnium rerum satur,
Prodeambulare huc lubitumst. De. Illud sis uide
Exemplum disciplinae. Sy. Ecce autem hic adest
Senex noster. quid fit? quid tu es tristis? De. Oh scelus.
Sy. Ohe iam: tu uerba fundis hic, sapientia?
De. Tu si meus esses. Sy. Dis quidem esses, Demea,
Ac tuam rem constabilisses. De. Exemplo omnibus
Curarem ut esses. Sy. Quam obrem? quid feci? De. Rogas?
In ipsa turba atque in peccato maxumo,
Quod uix sedatum satis est, potasti, scelus,
Quasi re bene gesta. Sy. Sane nollem huc exitum.

2. Express in Greek:—(*a*) Jus persequar. (*b*) Verbis solves quod re male feceris. (*c*) At enim. (*d*) Liberali assero causa manu. (*e*) Sedulo. (*f*) Fores crepuit and fores pulsavit. (*g*) Quantus quantus.

3. Construe, and explain the syntax of:—(*a*) In ore est omni populo. (*b*) Haec si neque ego neque tu fecimus. (*c*) Id laudi ducis quod fecisti inopia. (*d*) Ei mihi ne corrumpantur cautio est. (*e*) Ut cum opus sit ne in mora nobis siet. (*f*) Discrucior animi: animo male est.

4. (*a*) Parse the forms faxo, faxim, and faxem, and explain their formation (*b*) Parse the following:—reprensum, alserit, insuerit, tradier, refrixerit, permanet, es, defunctum. (*c*) Write out in full the following contractions:—sis, exporge, demsi, produxe, cedo (*imper.*), lautum, enarramus, siit, norimus, scisse.

5. (*a*) Write down the equivalents of the following according to the common orthography:—Quor, hauscio, nunciam, ipsus, erus, quoipiam, quoiuis, edepol. (*b*) Explain the formation of:—Illic, ilico, ellum, istoc, quî, ubi.

6. Give the meaning as exactly as you can, and explain the etymology of:—sedulo, obsonat, debacchatus, colaphos, mussitanda, scrupulum, articulo, saltem, demum, angiportum, ilignis, silicernium.

7. Name and write down the scheme of the metre of ext. (C), and scan the last four verses of the same ext.

8. (*a*) Narrate the leading facts that have been handed down to us respecting the birth-place and social position of Terence. (*b*) With what famous men was he intimate? What class of Greek literature, and what authors therein, did the Roman Dramatists take as their models? (*c*) Translate, with short explanatory notes, according to your own discretion, the following:—Græca Menandrv acta lvdis fvneralibvs Lvcio Æmilio Pavlo qvos fecere Q Fabivs Maxvmvs P Cornelivs Africanvs egere L Atilivs Praen L Ambivivs Tvrpio modos fecit Flaccvs Clavdi tib serranis tota facta sexta M Cornelio Cethego L Gallo cos.

B. A. ORDINARY EXAMINATION, 1876.

FRIDAY, APRIL 7TH:—MORNING, 9 TO 12.

LATIN.— { TACITUS.—HISTORIES, BOOK I.
{ JUVENAL.—SATIRES, VIII. AND X.

Examiner,.....REV. GEORGE CORNISH, LL.D

1. Translate:—

(A) Aegyptum copiasque, quibus coerceretur, iam inde a divo Augusto equites Romani obtinent loco regum: ita visum expedire, provinciam aditu difficilem, annonae fecundam, superstitione ac lascivia discordem et mobilem, insciam legum, ignaram magistratuum, domui retinere. regebat tum Tiberius Alexander, eiusdem nationis. Africa ac legiones in ea interfecto Clodio Macro contenta qualicumque principe post experimentum domini minoris. duae Mauritaniae, Raetia, Noricum, Thraecia et quae aliae procuratoribus cohibentur, ut cuique exercitui vicinae, ita in favorem aut odium

contactu valentiorum agebantur. inermes provinciae atque ipsa in primis Italia, cuicumque servitio exposita, in pretium belli cessurae erant. hic fuit rerum Romanarum status, cum Servius Galba iterum Titus Vinius consules inchoavere annum sibi ultimum, rei publicae prope supremum.

(B) Agebatur huc illuc Galba, vario turbae fluctuantis impulsu, completis undique basilicis ac templis, lugubri prospectu. neque populi aut plebis ulla vox, sed attoniti voltus et conversae ad omnia aures, non tumultus, non quies, qua'e magni metus et magnae irae silentium est. Othoni tamen armari plebem nuntiabatur: ire praecipites et occupare pericula iubet. igitur milites Romani, quasi Vologesen aut Pacorum avito Arsacidarum solio depulsuri ac non imperatorem suum inermem et senem trucidare pergerent, disiecta plebe, proculcato senatu, truces armis, rapidi equis forum inrumpunt. nec illos Capitolii adspectus et inminentium templorum religio et priores et futuri principes terruere quo minus facerent scelus, cuius ultor est quisquis successit.

(C) Veterem inter Lugdunenses *et Viennenses* discordiam proximum bellum accenderat. multae in vicem clades, crebrius infestiusque quam ut tantum propter Neronem Galbamque pugnaretur. et Galba reditus Lugdunensium occasione irae in fiscum verterat; multus contra in Viennenses honor: unde aemulatio et invidia et uno amne discretis conexum odium. igitur Lugdunenses exstimulare singulos militum et in eversionem Viennensium impellere, obsessam ab illis coloniam suam, adiutos Vindicis conatus, conscriptas nuper legiones in praesidium Galbae referendo. et ubi causas odiorum praetenderant, magnitudinem praedae ostendebant.

2. Give the date of the events recorded in this book, and name the emperors that successively were on the throne during the same period.

3. An estimate of Tacitus, as a historian, in respect of his general style and mode of treating his subject, and also of the trustworthy character of his work.

4. Give the geographical position, with modern names, of the following:—Mutina, Lugdunensis colonia, Agrippinensis colonia, Alpibus Cottianis, Poeninis jugis, Mediolanum, Novaria, Vercellae, Rhoxolani, Hispaliensibus et Emeritensibus, Treviros.

5. Write short explanatory notes on the following:—(1) Cataphractarum pondere. (2) Missili pilo. (3) Consularibus ornamentis. (4) Potens orbitate. (5) Vexillis cum ala Petrina. (6) Viatica sua et balteos phalerasque. (7) Vacationes centurionibus ex fisco numerat. (8) Transfugae et desertores.

6. Translate:—

(D) Malo pater tibi sit Thersites, dummodo tu sis
Æacidæ similis Vulcaniaque arma capessas,
Quam te Thersitæ similem producat Achilles.
Et tamen, ut longe repetas longeque revolvas
Nomen, ab infami gentem deducis asylo.
Majorum primus quisquis fuit ille tuorum,
Aut pastor fuit aut illud quod dicere nolo.

(E) Temporibus diris igitur jussuque Neronis
Longinum et magnos Senecæ prædivitis hortos
Clausit, et egregias Lateranorum obsidet ædes
Tota cohors : rarus venit in cœnacula miles.
Pauca licet portes argenti vascula puri,
Nocte iter ingressus, gladium contumque timebis
Et motæ ad lunam trepidabis arundinis umbram :
Cantabit vacuus coram latrone viator.
Prima fere vota et cunctis notissima templis
Divitiæ, crescant ut opes, ut maxima toto
Nostra sit arca foro. Sed nulla aconita bibuntur
Fictilibus : tunc illa time, quum pocula sumes
Gemmata et lato Setinum ardebit in auro.

7. Explain the following constructions :—

(*a*) Stratus *humi* palmes ; (*b*) Pater *tibi sit* Thersites ; (*c*) Ut tamen *et poscas* aliquid ; (*d*) *Repulsa* Sthenebœa nec minus excanduit ; (*e*) Suppositum *rotis* solidum mare ; (*f*) *Tituli* cupido *haesuri saxis cinerum custodibus*

8. Explain the following extt. :—

(1) Populus quod clamat Osiri invento ; (2) Cecropides ; (3) Trunco Hermae ; (4) Ducunt epiredia ; (5) Per conventus ; (6) Idumæae incola portae ; (7) Quos sportula fecit amicos ; (8) Genua incerare deorum.

FIRST YEAR.

GREEK AND LATIN PROSE COMPOSITION.

Monday, April 3rd :—Afternoon, 2 to 4.

Examiner,.....Rev. George Cornish, LL.D.

(A) Translate into Greek :—

1. He that loves not his father and mother is a bad citizen.

2. The king was pleased with those who managed well the affairs of the state, but annoyed at the wicked being prosperous.

3. The general and his soldiers marched into the enemy's country and laid waste the greater part of it.

4. Let us pursue what is good, but shun what is bad ; for this is disgraceful, whilst that is honourable.

5. The same things are not always in the power of the same men.

6. The king himself will treat the citizens well.

(B) Translate into Latin :—

1. Hannibal, the Carthaginian general, defeated the Romans at the battle of Cannae, and his troops acquired great booty.

2. The river Euphrates flowed through the midst of Babylon, a city very magnificent, very rich, and very famous in ancient times.

3. It is the duty of parents to teach their children justice, temperance, filial affection, and a love of truth, in order to their becoming good citizens.

4. We ought not to put confidence in bad men; but those who are wiser and better than ourselves should be trusted by us.

5. We should always prefer what is right to that which is expedient only.

6. He made answer that it was pleasant to confer benefits upon the good.

7. He was born at Athens; lived a short time at Corinth; went thence to Thebes, and died there.

8. I fear that he is going to conceal these things from his parents, and that they will not find them out.

INTERMEDIATE EXAMINATION.

LATIN PROSE COMPOSITION.

TUESDAY, APRIL 4TH:—AFTERNOON, 2 TO 5.

Examiner,.....REV. GEORGE CORNISH, LL.D.

Translate into Latin:—

(A) Tarquinius gained his power wickedly, and no less wickedly did he exercise it. He kept a guard of armed men about him, and he ruled all things at his own will: many were they whom he spoiled of their goods many where they whom he banished, and many also whom he slew. He despised the senate, and made no new senators in the place of those whom he slew, or who died in the course of nature, wishing that the senators might become fewer and fewer, till there should be none of them left. And he made friends of the chief men among the Latins, and gave his daughter in marriage to Mamilius of Tusculum; and he became very powerful amongst the Latins, insomuch that when Turnus Herdonius of Aricia had dared to speak against him in the great assembly of the Latins, Tarquinius accused him of plotting his death, and procured false witnesses to confirm his charge; so that the Latins judged him to be guilty, and ordered him to be drowned.

(B) Cæsar sent the news of this signal triumph to Rome, and the senate after reading his despatch, decreed with acclamation a supplicatio, or

national thanksgiving to the gods. Cato rose indignantly to deprecate the bestowal of such honors on an occasion so unworthy. He denounced the conduct of Cæsar as perfidious and degrading to the Roman name. He described his treatment of the Germans as a violation of the pledged faith of the republic:—he declared that Cæsar ought to be given up to the Germans in expiation of the national crime. Examples of such course were not altogether wanting.

THIRD YEAR.

LATIN PROSE COMPOSITION.

FRIDAY, APRIL 7TH:—AFTERNOON, 2 TO 4.

Examiner,.....REV. GEORGE CORNISH, LL.D.

Translate into Latin:—

They were now about twenty stadia from Minturnæ, an Italian city, when they saw at a distance a troop of horse riding towards them, and as it chanced, two merchant vessels sailing along the coast. Running down to the sea as fast as they could, and as their strength would allow, and throwing themselves into the water, they swam to the vessels. Granius, having got into one of the vessels, passed over to the island of Ænaria, which is off that coast. But Marius, who was heavy and unwieldy, was with difficulty held above the water by two slaves, and placed in the other vessel, the horsemen being now close to them, and calling from the shore to the sailors either to bring the vessel to land, or to throw Marius overboard, and to set sail wherever they pleased. But as Marius entreated them with tears in his eyes, those who had command of the vessel, after changing their minds as to what they should do, as often as was possible in so short a time, at last told the horsemen that they would not surrender Marius. The horsemen rode off in anger, and the sailors again changing their minds, came to land, and casting anchor at the mouth of the Liris, which spreads out like a lake, they advised Marius to disembark, and take some food on land, and to rest himself from his fatigues till a wind should rise: they added, that it was the usual time for the sea-breeze to decline, and for a fresh breeze to spring up from the marshes. Marius did as they advised, and the sailors carried him out of the vessel, and laid him on the grass, little expecting what was to follow. The sailors immediately embarking again, and raising the anchor, sailed off as fast as they could, not thinking it honorable to surrender Marius, or safe to protect him.

B.A. ORDINARY EXAMINATION.

LATIN PROSE COMPOSITION.

THURSDAY, APRIL 6TH :—AFTERNOON, 2 TO 4.

Examiner,.....REV. GEORGE CORNISH, LL.D.

Translate into Latin:—

(A) A dissembler must always be upon his guard, and watch himself carefully, that he do not contradict his own pretensions: for he acts an unnatural part, and therefore must put a continual restraint upon himself. Whereas he that acts sincerely has the easiest task in the world, because he follows nature: he need not invent any pretences beforehand, or make excuses afterwards, for anything he has said or done. But insincerity is very troublesome to manage: a hypocrite has so many things to attend to as make his life a very perplexing thing. A liar hath need of a good memory, lest he contradict at one time what he said at another; but truth is always consistent with itself, and needs nothing to help it out.

(B) Cæsar was this time superior in numbers, and especially in cavalry; but the enemy was well posted, and fought well: never, it is said was the great conqueror brought so near to defeat and destruction. He exhibited, as on other critical occasions, all the personal courage of a private soldier, snatching a shield from one of the legionaries, and rushing within ten paces of the enemy's line, where he was exposed to the aim of two hundred piles and javelins. The officers were the first to dash forward to protect him with their bodies: and the soldiers, at the very height of their dismay, were recalled to themselves by this splendid example. When the battle was at last gained, Cæsar is said to have remarked, that he had often fought for victory, but never before for his life.

B.A. ORDINARY EXAMINATION.

GENERAL PAPER,

FRIDAY, APRIL 7TH :—AFTERNOON, 2 TO 4.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. What was the period of the Athenian supremacy in the affairs of Greece? Name the statesmen and generals that mainly contributed to the maintenance of that supremacy.

2. Compare Athens and Sparta. What were the main causes and results of the Peloponnesian war?

3. What was the policy of Persia in relation to the Grecian States at the close of and subsequent to the Peloponnesian War? Cite the stipulations of the Peace of Antalcidas, and show to what extent that policy was successful.

4. What events led to the war between Sparta and Thebes? By what two great battles was the Spartan supremacy crushed? Name the leaders on both sides.

5. A short account of Socrates and of the Sophists.

6. State generally what was the civil and military condition of the Roman Empire at the time of the death of Augustus.

7. Write a sketch of the state of society at Rome, politically and socially, as depicted by Tacitus in the First Book of his Histories. What is the date of the events recorded in that book?

8. Name, with dates, the Roman Emperors who reigned previous to the birth, and also to the death of Tacitus.

FIRST YEAR.

HISTORY.—HISTORY OF GREECE AND ROME.

TUESDAY, APRIL 4TH:—AFTERNOON, 2 TO 4.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. (*a*) Give the geographical boundaries of Greece proper, and name the leading States. (*b*) Whence, and what the meaning of, the designations,—*Græcia*, *Hellas*, *Peloponnesus*, *Cyclades*, *Sporades?* (*c*) Define carefully the positions, severally, of:—Cythera, Thasos, Chios, Phocis, Phocæa, Melo Corcyra, Trœzene.

2. (*a*) Name the four great tribes of the Hellenic race, and give a tabular view of their legendary genealogy. (*b*) In tracing the origin of nations, what is the most trustworthy guide? (*c*) Name the three most celebrated expeditions of the Heroic Age.

3. A short account of Greek colonization.

4. The four great Pan-Hellenic Festivals;—with an estimate of their uses and advantages.

5. Give the substance of Dr. Smith's remarks on the objects and results of the legislation of Lycurgus.

6. An account of the Constitution of Cleisthenes, and of the development of Democracy at Athens.

7. Give an account of the Constitution of Servius Tullius.

8. What causes led to the struggles between the Patricians and the Plebeians? What were the general results of the contention?

9. How many years did Hannibal continue in Italy, and what signal defeats did he inflict upon the Romans?

10. What events are connected with the names of Lucius Junius Brutus, Spurius Cassius, Camillus, Coriolanus, Fabius Cunctator? Give dates.

THIRD YEAR EXAMINATION FOR HONOURS.

LATIN.

WEDNESDAY, APRIL 12TH:—AFTERNOON, 3 TO 5.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate:—

(A) Horace, Satires, Book I. Sat. vii. vss. 1–21.

2. (*a*) Explain what was the subject of this satire, and on what grounds a high place has been assigned to it by some. (*b*) In what department of his poetry does Horace excel? (*c*) Give, as far as you may be able, a chronological arrangement of his works.

3. Explain the meaning of the following:—(1) *Ut equis* praecurreret *albis*. (2) Omni *conventu*. (3) *Magna* compellans *voce cucullum*. (4) Serpens *Epidaurius*. (5) Cum *tristes* venere *Kalendae*. (6) *Altius* ac nos *praecinctis* unum. (7) *Ad unguem* factus homo. (8) *Parochi* quae debent ligna salemque.

4. Translate:—

(B) Juvenal, Sat. viii., vss. 39—55; and (C) Sat. x., vss. 250–264.

5. Explain carefully the import of the following from the above ext.:—(1) *Tamquam* feceris. (2) *Ut* te conciperet. (3) *Nobilis* indocti. (4) *Juvenis*. (5) *Trunco* Hermæ. (6) *Ut primos*—inciperet. (*b*) Explain also the following extt. from Sat. x.:—(1) Pluma Sardanapali. (2) Ritu decies centena dabuntur antiquo. (3) Non nisi legitime vult nubere. (4) Usque ad delicias votorum. (5) Animam exhalasset opimam. (6) Madidis Sostratus alis.

6. Translate:—

(D) Terence, Adelphi, Act. iv., Sc. i.

7. (*a*) Supply ellipses that occur in vss. 2, 3, 12, 21, and 23. (*b*) Explain the forms:—ain, dic, sodes, prorsum, noctu, es, potin. (*c*) Name the metres found in the above ext., and scan vss. 1, 2, 8, and 20, giving the schemes, respectively.

8. Translate:—

(E) Cicero, De Imp. Cn. Pomp. Chap. XXIII. down to *magnum esse videamus*.

9. Give as accurately as you can the meaning and etymology of the following words:—bellissimum, pistrilla, oppido, stemmata, squalentes, procerem, conchylia, crustula, caupo, nautae, vappam, nebulonem.

10. A short account of the rise and growth of Dramatic and Satyric literature among the Romans.

GREEK AND LATIN PROSE COMPOSITION.

WEDNESDAY, APRIL 5TH:—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, LL.D.

(A) Translate into Greek (accented):—

We Athenians entered upon the war against the Lacedæmonians and their allies, in the possession of triremes, some at sea, and others in our arsenals, not less than four hundred in number, while we had at the same time a large store of money in the city, and a yearly revenue accruing from import duties, and from beyond our own borders, not less certainly than a thousand talents. And though rulers of all the islands, and possessing many cities in Asia, and many others in Europe besides, and this self-same Byzantium where we now are, we have been thus utterly beaten in the war, as ye all full well know.

(B) Translate into Latin:—

From her situation, Rome is exposed to the danger of frequent inundations. Without excepting the Tiber, the rivers that descend from either side of the Apennines have a short and irregular course: a shallow stream in the summer heats; an irregular torrent, when it is swelled in the spring or winter, by the fall of the rain, or the melting of the snows. When the current is repelled from the sea by adverse winds, when the ordinary bed is inadequate to the height of the waters, they rise above the banks, and overspread, without limit or control, the plains and cities of the adjacent country. Soon after the triumph of the first Punic war, the Tiber was increased by unusual rains; and the inundation, surpassing all former measure of time and place, destroyed all the buildings that were situate below the hills of Rome. According to the variety of the ground, the same mischief was produced by different means; and the edifices were either swept away by the sudden impulse, or dissolved and undermined by the long continuance, of the flood. Under the reign of Augustus, the same calamity was renewed; the lawless river overturned the palaces and temples on its banks; and, after the labours of the emperor in cleansing and widening the bed, that was encumbered with ruins, the vigilance of his successors was exercised by similar dangers and designs. The project of diverting into new channels the Tiber itself, or some of the dependent streams, was long opposed by superstition and by local interests; nor did the use compensate the toil and cost of the tardy and imperfect execution. The servitude of rivers is the noblest and most important victory which man has obtained over the licentiousness of nature; and if such were the ravages of the Tiber under a firm and active government, what could oppose, or who can enumerate, the injuries of the city after the fall of the Western empire? A remedy was produced by the evil itself: the accumulation of rubbish and the earth that has been washed down from the hills, is supposed to have elevated the plain of Rome, fourteen or fifteen feet perhaps, above the ancient level; and the modern city is less accessible to the attacks of the river.

GREEK.

FRIDAY, APRIL 21ST:—MORNING, 9 TO 12.

Examiner,.. .....REV. GEORGE CORNISH, LL.D.

1. Translate the following extracts, adding an explanatory note where you deem it necessary:—

(A) Theocritus, Idyl IV., vss. 1–25.

2. (*a*) Give an account of the *Poets* of the Alexandrian School. State the distinctive features of their poetry. (*b*) Give the derivation and definition of the designation *εἰδύλλια*. (*c*) Turn the following forms into Attic:—*τήνα, χιμάρω, ἤνθε, βασεῦμαι, τώς, τυ, εἰμές, ψέ, Δᾶν, τῶ*. (*d*) Where is the scene of Idyl IV. laid? Explain:—*τὸ Μάλιμνον, τὰ Φύσκω, Νήαιθον, Λάτυμνον*.

2. Translate:—

(B) Hesiod, Works and Days, vss. 340–360.

3. (*a*) Cite similar proverbs and maxims from the Latin or any modern language. (*b*) Explain and illustrate the following:—*ὑψίζυγος, κακόχαρτος, ἀμφαγαπῶντες, γυιοκόρους, διάκτορον Ἀργειφόντην; ἀνδράσιν ἀλφηστῆσιν, λόγον ἐκκορυφώσω, μερόπων ἀνθρώπων, τροχαλὸν γέροντα*. (*c*) Explain the Title *Ἔργα καὶ Ἡμέραι*. (*d*) Name the leading commentators, ancient and modern, on Hesiod.

4. Translate:—

(C) Sophocles, Antigone, vss. 450-470. (D) ib., vss. 966-987.

5. (*a*) Analyse the metres of, and scan, strophe β in ext. (D). (*b*) Construe carefully the same strophe, discussing the meaning of *παρὰ* (Mss.), *πάρα* (Jelf, suggestion), *πὰρ* (Wunder, conj.). (*c*) Write notes on the geographical and legendary references of ext. (D). (*d*) Point out and discuss any two leading various readings that occur in this drama. (*e*) Divide the play into its several parts, giving the proper designations of the same. (*f*) What improvements in Tragedy are attributed to Sophocles?

6. Translate:—

Xenophon, Hellenics, Book II., Chap iii., §§ 30–31.

7. How does the History of Xenophon stand related to that of Thucydides in respect of its chronology and subject-matter?

8. Explain the following, pointing out the general principles which regulate the conjunction of cases with verbs:—*λέγειν λόγον, ἀκούειν λόγου, ἥδεσθαι λόγῳ, μεμνῆσθαι λόγου, θνητοῖσιν ἀνάσσειν, ὅπλοις χρῆσθαι*.

GREEK AND ROMAN HISTORY.

FRIDAY, APRIL 21ST:—AFTERNOON, 2 TO 5.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Give an account of the establishment of the various Hellenic communities of Asia Minor. To what extent may the superiority of certain of these communities in literature and civilization generally, over the tribes of the mother-country, be attributed to their intercourse with foreign nations?

2. Enumerate the Western Colonies of Greece. What were the peculiar features of Grecian colonization, and the causes of the general prosperity of the Colonies?

3. What were the causes, according to Grote, that tended to promote union among the Hellenic States? To what extent were they effectual in doing so? On the other hand, what causes were at work to prevent political union?

4. State what were the constitutions of Athens and Sparta in the earliest historical times, and what fundamental changes were, at different times, made down to the period of the Peloponnesian War.

5. (*a*) Compare the policy of Pericles with that of his successors as leaders of the democracy at Athens? (*b*) Give a brief notice of the principal opponents of Pericles in the earlier part of his political career.

6. Give an account of the institution of *Ostracism* at Athens, and the political objects for which it was maintained.

7. Give the substance of Mommsen's account of "The Beginnings of Rome."

8. "The Etruscan people present a striking contrast to the Latin and Sabellian Italians as well as to the Greeks:"—in what respects?

9. Trace the constitutional changes by which the Plebs gained possession of political power.

10. An ethnological and political sketch of the Carthaginians.

B. A. EXAMINATION FOR HONOURS.

GREEK POETS.

THURSDAY, MARCH 30TH:—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate, with an explanatory note when you deem it necessary:—

(A) Pindar, Olympia II., vss. 48–83.

(B) Theocritus, Idyl I., vss. 95–119.

(C) Aristophanes, The Frogs, vss. 1251–1260.

(D) Æschylus, Seven against Thebes, vss. 792–812.

(E) Sophocles, Antigone, vss. 223–236, and 781–805.

2. Ext. (A):—(*a*) Give an account of the Festivals referred to in this ext. (*b*) Give a statement of the facts known of the life of Pindar. On what grounds has so high a position been assigned to him as a poet? (*c*) Ol. I., 28, *ἢ θαυματὰ πολλά*,—Dissen reads *θαύματα*; distinguish between them, and point out which is preferable. Ol. II., 87, *ἄκραντα γαρύετον κ. τ. λ.*—explain the reference. (*d*) What is meant by the *schema Pindaricum*? Cite an instance from Olymp. VIII., if a *var. lect.* be adopted.

3. (*a*) Show the construction of vss. 1 and 2 of Theocr. Idyl I. Point out where in the verse of Theocritus the *Bucolic Caesura* occurs. (*b*) Parse the following, giving equivalents in Attic:—*ἀποισῇ*, *τεῖδε*, *ᾠδήκαντι*, *ϑᾶσαι*, *δασπλῆτι*, *τίν*, *ἧς*, *παρῆμεν*. (*c*) An account of Theocritus and of his poetry. (*d*) Derive and define the term *εἰδύλλιον*.

4. Explain the following from the Frogs:—(1) *κωδωνίσω*, 78. (2) *κόβαλα*, 104. (3) *ἐς Κεραμεικόν*. (4) *δύ' ὀβολῶ μισϑὸν λαβών*. (5) *Ὄνου Πόκας*. (6) *ἔφυσε φράτερας*, 418. (7) *ἐβουλόμην*, 866. (8) *οὐ Χίος, ἀλλὰ Κεῖος*. (*b*) Analyse the metres of vss. 1251–1260. (*c*) What are the points which Aristophanes ridicules in Euripides? What were the grounds of his antipathy?

5. (*a*) How does Aristophanes characterize the Seven against Thebes? How may the popularity of this drama in ancient and later times be accounted for? (*b*) By what other Dramatists, and in what plays, has the subject of the expedition of Polynices against

Thebes, and the events consequent thereupon, been treated. (*c*) Explain the force of the epithet Ἑβδομαγέτης. (*d*) τεθρυμμέναι (Hermann);—on what grounds? (*e*) Scan vss. 452–456, naming the metres and giving the scales.

6. (*a*) Write explanatory notes on the following expressions from the Antigone, noting various readings of any:—(1) σὺν δίκῃ χρησθεὶς δικαίᾳ καὶ νόμῳ,—vss. 23–24. (2) μόρον κοινὸν κατειργάσαντ' ἐπ' ἀλλήλοιν χεροῖν,—vss. 56–57. (3) ἀλλ' ἰσθ' ὑπωπιά σοι δοκεῖ,—vs. 71. (4) Ἄρης δεξιόσειρος,—vss. 139—140. (5) ὃς ἐν κτήμασι πίπτεις,—vs. 783. (6) πολυώνυμε Καδμεῖας νύμφας ἀγαλμα,—vs. 1115. (*b*) Enumerate the scenes of this Drama in their order and give their several designations.

LATIN PROSE COMPOSITION.

THURSDAY, MARCH 30TH:—AFTERNOON, 2 TO 5.

Examiner,.....REV. GEORGE CORNISH, LL.D.

Translate into Latin:—

This was generally believed. Hannibal was the only man who perceived that he was aimed at by the Romans: and that peace was only allowed the Carthaginians *on the understanding that* a remorseless war should be maintained against himself alone. He, therefore, resolved to submit to the crisis and to his fate: and having prepared everything for flight, and *having publicly appeared* in the Forum on that day in order to avert suspicion, he, as soon as darkness fell, departed in his *out-of-door* dress, with two attendants, ignorant of his design. Horses being in readiness at the spot where they had been ordered, he passed through Byzacium by night, and arrived, on the following day, on the sea-coast, between Acholla and Thapsus, at a castle of his own. There a vessel prepared, and manned with rowers, received him. Thus did Hannibal leave Africa, pitying the fate of his country oftener than his own. The same day he crossed into the isle of Cercina. Finding there several Phœnician merchant ships in harbour, with their freights, and a concourse of people having flocked together to welcome him as he disembarked from the vessel, he ordered that all who inquired should be informed that he had been sent as ambassador to Tyre. Apprehensive, however, that one of their ships sailing by night for Thapsus or Adrumetum, might announce that he had been seen at Cercina, he commanded a sacrifice to be prepared, and the captains of the vessels and the merchants to be invited; also giving orders that the sails, together with the yard-arms, should be brought together from the ships, that they might enjoy the shade—for it happened to be midsummer—while supping on the shore. So far as circumstances and time permitted, the banquet was duly prepared and celebrated on that day: and the feast

was protracted with a profusion of wine to a late hour of night. Hannibal, as soon as he found an opportunity of escaping the notice of those who were in the harbour, unmoored his vessel. The rest having at length arisen from their deep slumber, on the following day, full of the *fumes of wine*, spent several hours in carrying back and replacing, and setting in order, the tackle of their ships. At Carthage, too, there was a concourse of the people, accustomed to frequent the house of Hannibal, at the vestibule of his mansion. As soon as it was generally known that he was not *to be found*, a crowd of citizens in quest of the chief man in the state, flocked to the Forum. Some spread a report that he had *had recourse to* flight—as was really the case—others that he had been assassinated by the treachery of the Romans; and you might observe various countenances, as is natural in a state agitated by the intrigues of partisans supporting different factions.

GREEK PROSE WRITERS.

WEDNESDAY, APRIL 12TH:—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate, adding an explanatory note where you deem it necessary, the following extracts:—

(A) Thucydides, Book I., Chap. xxiii.
(B) Herodotus, Book IX., Chap. xcvi.
(C) Xenophon, Hellenics, Book II., Chap. iii., §§ 30–31.

2 (*a*) Write short notes explanatory of the references to political and physical occurrences in Ext. (A). (*b*) Write a critique on the the style of Thucydides, pointing out his grammatical and rhetorical peculiarities. (*c*) What is the relative value of Thucydides and Herodotus as historical authorities? On what grounds is their respective value to be estimated?

3. Explain grammatically, or otherwise as may be necessary, the following ext.:—(*a*) Thuc., I., 144;—*ἦν καὶ Λακεδαιμόνιοι ξενηλασίας μὴ ποιῶσι.* (*b*) ib., 138;—*οὐ γὰρ ἐξῆν θάπτειν ὡς ἐπὶ προδοσίᾳ φεύγοντος.* (*c*) ib., 131;—*καὶ σκυτάλην εἶπον τοῦ κήρυκος μὴ λείπεσθαι.* (*d*) ib., 120; *ἀνδρῶν γὰρ * * * εἰ μὴ ἀδικοῖντο.* ("Usitatius *ἐὰν μὴ ἀδικῶνται* diceretur." Poppo.) Show the force of the Opt. (*e*) ib., 48;—*διέκπλοι δ' οὐκ ἦσαν.* (*f*) ib., 22;—*ὡς ἑκατέρων τις εὐνοίας ἢ μνήμης ἔχοι.*

4. Write short notes explanatory of the following historical or other references from Herodotus and Xenophon:—(*a*) Herod., VIII., 3;—*πρόφασιν τὴν Πανσανίεω ὕβριν κ.τ.λ.* (*b*) ib. 6;—*μηδὲ πυρφόρον ἐκφυγόντα περιγένεσθαι.* (*c*) ib., 65;—*τὸν μυστικὸν ἴακχον.* (*d*) ib., 74;

—*αὐτόχθονες ἐόντες.* (*e*) Xen., Hellen. II. cap. ii., § 30;—*μετεταστῆσαι τὴν δημοκρατίαν εἰς τοὺς τετρακοσίους.* (*f*) ib., iv., § 5;—*ὑέμενος τὰ ὅπλα.*

5. Translate:—

(D) Aristotle, De Poetica, Chap. xxii., §§ 1–4, inclusive.

6. (*a*) Define briefly the following terms which occur in this treatise:—*ποιητική, ἐποποιία, μίμησις, ῥυθμῷ καὶ μέλει καὶ μέτρῳ, ἐπεισόδιον, πρόλογος, τραγῳδία.* (*b*) What is the condition of the Text of the De Poetica?

7. Translate:—

(E) Plato, De Republica, Book I., § xi., down to *ὅμοίον τοῦτο ἐκείνῳ.*

8. Translate:—

(F) Demosthenes, De Corona, § 261–62 (Ed. Tauch.), *Ἐπ ἄρχοντος Πολυκλέους* down to end of the *Κατάλαγος.*

9. An account of the *τριηραρχία,* of the *βουλὴ τῶν πεντακοσίων,* and of the *ἐκκλησία* at Athens. *Ὁ νομοθέτης*:—Who is meant?

GREEK PROSE COMPOSITION.

Wednesday, April 12th:—Afternoon, 2 to 5.

Examiner,.....Rev. George Cornish, LL.D.

Translate into Greek (accented):—

When the generals had come down again, Thrasybulus then delivered the following speech: "To you, gentlemen of the city, I give this advice—to know yourselves. And you would best gain that knowledge by considering upon what grounds you ought to be so lifted up as to attempt to rule over us. Are you more honest men? Nay, but the people, though poorer than you, never yet wronged you for the sake of money: whereas you, though richer than all of us, have done many base deeds for gain. But since you have no claim to honesty, see whether, then, it is on your courage that you should pride yourselves. And what better test of this could there be, than the manner in which we have carried on war against each other? But is it in counsel that you would profess to surpass us? you who with a fortified town, and arms, and money, and allies from the Peloponnesus, have met with such reverses at the hands of men who had none of these advantages? But it is by your connection with the Lacedæmonians, forsooth, that you think you ought to be elated? How so? For just as men fasten a collar to biting curs, and give them up to

those they have bitten; so they, too, have given you up to this injured people, and are gone away. I do not, however, wish you, my friends, to break any of the conditions to which you have sworn; but in addition to all your other noble qualities to show this also, that you are both true to your oaths, and have a sense of religion."

LATIN PROSE WRITERS.

FRIDAY, APRIL 21ST:—MORNING, 9 TO 12.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate the following extracts into English, adding a brief comment where any peculiar form or construction seems to you to require it:—

(A) Cicero, De Imp. Cn. Pomp., chap. v., §§ 11–12.

2. (*a*) Narrate the date, object, and result of the delivery of this oration. By what other name is it designated? (*b*) Explain the following references:—(1) Corinthum totius Græciæ lumen. (2) Jus legationis. (3) Socius populi Romani. (4) Duo reges imminent toti Asiæ. (5) Cum Antiocho, cum Philippo, cum Aetolis bella gesserunt.

3. Translate:—

(B) Livy, Book XXI., chap. xxii.

4. (*a*) Write short ethnological notes on:—(1) Hispani. (2) Afri. (3) Libyphœnices. (4) Numidae. (5) Mauri. (*b*) With what numbers did Hannibal (1) cross the Rhone, and (2) enter Italy? (*c*) A short account of the tribes from which he recruited his forces.

5. Translate:—

Tacitus, Annals, Books I.—II.:—(C) I., chap. lxiv. (D) II., chap. lxxxiii.

6. (*a*) Explain the following military terms:—Stationes, vallum, agger, librare pila, stipendium, decumana, castra metare. (*b*) Explain:—Saliari carmine, sacerdotum, Augustalium, flamen aut augur. (*c*) A short account of Germanicus and Arminius. Give the German name of the latter.

7. Translate:—

(E) Tacitus, Histories, Book I., chaps. lxvii–viii.

8. (*a*) Point out characteristics of the style of Tacitus illustrated by the extracts here given. (*b*) Compare the styles of Cæsar, Livy, and Tacitus. (*c*) Distinguish between the *Annales* and *Historiæ*.

GENERAL PAPER.

FRIDAY, APRIL 21ST:—AFTERNOON, 2 TO 5.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. (*a*) Give the proper definition of Comparative Philology. (*b*) Classify the letters of the Greek Alphabet; and state, with illustrations, what you know of Grimm's law for the interchange of Consonants in the Greek and cognate languages. (*c*) Give in accordance with Grimm's Law the cognate words in Greek or Latin, or both, of the following:—*foot, door, tame, heart, head, wit, sweet, goose, hound, sit.*

2. Define carefully the grammatical terms:—*tense, mood, case, idiom, stem, inflection,* and *declension,* severally. Illustrate.

3. What are the two great classes into which Latin nouns may be divided according to their case-inflexions?

4. Write down a list of Latin nouns which, when used in the Plural, have a special meaning different from their ordinary meaning in the Singular.

5. What are the general principles regulating the conjunction of cases with the Verbs in the following, severally:—(1) *ἀλγῶ τὴν κεφαλήν.* (2) *ἐπιτεραμμένοι τὴν φυλακήν.* (3) *λέγειν λόγον.* (4) *ἤκουσε θορύβου ἰοντος.* (5) *μεμνῆσθαι τινός.* (6) *ὁπλοις χρῆσθαι.* (7) *Nubere alicui.* (8) *Æris indigere.* (9) *Carne vesci.* (10) *Parvi facere.*

6. Analyse the following grammatical forms:—*βίηφι, ἔσχον, ἄνωχθι, σύτο, ἐμολον,* ruri, rure, sicubi, ibi, aurai, divôm.

7. Derive and explain the meaning of:—*ala, anceps, bruma, contio, mollis, carcer, lustrum, consul, provincia.*

8. Distinguish between the meanings of the following words according to the difference of their accentuation:—*καλος, πειθω, τροκος, ην, η, ειμι, εν, ει εια, ανα, αν, ιω.*

9. (*a*) Give the original meaning of the term *Τραγῳδία.* What was the state of Tragedy before the time of Aeschylus. (*b*) Detail the changes and improvements introduced by him in the composition and representation of Dramas. (*c*) What was the comparative estimate formed by the Ancients of the three great Greek tragedians.

LATIN POETS.

MONDAY, APRIL 24TH:—MORNING, 9 to 12.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Translate, adding an explanatory note where you may deem it necessary on any peculiar form or construction:—

(A) Juvenal, Sat. VIII., vss. 146-162.
(B) Persius, Sat. VI., vss. 25-40.
(C) Horace, Satt., Book I., Sat. iii., vss. 41-56.
(D) Terence, Adelphi, Act. i., sc. 2, vss. 31-49.
(E) Plautus, Aulularia, Act iii., sc. 5, vss. 31-48.
(F) Virgil, Æneid, Book III., vss. 162-175.

2. Give the difference in meaning of the following various readings:—(Juvenal, Sat. VIII.) (*a*) *Humeroque—humerosque* minorem [4]. (*b*) *Fumosos—famosos* magistros [8]. (*c*) *Corythae—Coryphaei*. (*d*) *Torvum—robum* juvencum [155]. (*e*) (Sat. X.) *Summas—sellas* curules [91]. (*f*) *Angusta—augusta* in rupe [93].

3. Discuss the meaning of the following (Persius, V. and VI.):—(*a*) Custos purpura (V. 30). (*b*) Fallere sollers (39). (*c*) Artificem vultum (40). (*e*) Masuri rubrica (90). (*f*) Lubrica Coa (135). (*g*) Cor Enni **** Pythagoreo (vi. 10-11). (*h*) Maris expers (39).

4. Analyse, and give the full equivalent of such forms as:—Quor, scin, quorsum, reist, operiere, faxo, hocine, quoi, quom, sodes.

5. (*a*.) Explain the force of the prepositions in the following:—*Aul.*—Prol., 2, ex hac familia; ib. 21, ex se; I., 3, 40, in viros; II., 1, 33, in rem; ib. 2, 8, a pecunia; III., 2, 6, de industria. (*b*) Point out peculiarities of Syntax in Plautus and Terence, as compared with the usages of the Augustan writers. (*c*) Name the metre of ext. (E) and scan any four vss., carefully indicating the feet and quantities.

6. Cite archaic forms of words used by Virgil.

7. Institute a comparison between the three great Roman satirists in respect of the moral and literary characteristics of their writings.

8. Explain the uses of the moods in Latin with *quum*, and give the reasons for the following constructions:—

(*a*) Zenonem, cum Athenis *essem*, audiebam frequenter.
(*b*) Res, cum haec *scribebam*, erat in summum adducta discrimen.

HISTORY OF GREECE AND ROME.

MONDAY, APRIL 24TH:—AFTERNOON, 2 TO 5.

Examiner,.....REV. GEORGE CORNISH, LL.D.

1. Give a summary, accompanied with dates, of the events by which the Athenians, Lacedæmonians, and Thebans, acquired in succession the hegemony of Greece. Compare the leading characteristics, and the general influence upon Greece, of these supremacies severally.

2. An account of the rise and fall of the Four Hundred at Athens.

3. Give an account of the growth of the Macedonian empire and of the policy adopted by it towards the Hellenic states. What were the results of this policy, and to what causes may they be assigned?

4. An account of Demosthenes as an orator and statesman:—by what political opponents were his policy and plans thwarted?

5. Sketch the political history of Rome from the establishment of the Servian Constitution to the Decemvirate.

6. Describe, from Mommsen, the functions of the Consuls and other officers of government in the best days of the Republic.

7. A sketch, with dates of the origin and course of the second Punic War.

8. Give Mommsen's estimate of the character and statesmanship of Cicero.

MATHEMATICS AND NATURAL PHILOSOPHY.

FIRST YEAR.

EUCLID—ARITHMETIC.

THURSDAY, APRIL 6TH:—MORNING, 9 TO 12.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. If a right line be divided into any two parts, the rectangle under the whole line and one part is equal to the square of that part and the rectangle under the parts.

2. The opposite angles of a quadrilateral inscribed in a circle, are, together, equal to two right angles.

a. Prove the converse.

3. In equal circles, or the same circle, equal straight lines cut off equal arcs.

4. Inscribe a regular hexagon in a given circle.

5. Divide a right line proportionally to a given divided line.

6. Similar triangles are to one another in the duplicate ratio of their homologous sides.

7. If four right lines be proportional, the rectangle under the extremes is equal to the rectangle under the means.

a. The rectangle under the sides of a triangle is equal to the rectangle under the perpendicular on the base, and the diameter of the circumscribed circle.

8. Define a decimal fraction. State and prove the rule for reducing vulgar fractions to decimals.

9. Find a fourth proportional to $1\frac{3}{4}$, $2\frac{1}{2}$ and .001.

10. Divide the half of the square of $\frac{1}{2}$ by 2; and find the difference between the square root of the result, and three-fourths of one-third of 4.

11. Extract the square root of 3.14159.

12. Find the cost of carpeting a room 21 feet 6 inches long by 19 fee 3 inches wide; the chimney projecting 2 ft. 3 in. into the room and being 7 feet wide; the carpet costing $1.65 per yard and being 27 inches wide.

FIRST YEAR.

TRIGONOMETRY—ALGEBRA.

FRIDAY, APRIL 7TH:—MORNING, 9 TO 12.

Examiner,..... .....ALEXANDER JOHNSON, L.L.D.

1. Prove

$$tan\ A = \sqrt{sec^2 A - 1};\ versin\ 180° = 2.$$

2. If $sec\ A = 1\frac{3}{20}$, calculate $sin\ A$.

3. Prove that the sine of any angle is equal to the sine of its supplement. The cosine of an angle is equal to the cosine of its supplement, but of opposite sign.

4. If A be the circular measure of any angle and A'' the number of seconds in it, prove

$$A = A''\ sin\ 1''.$$

5. Prove

$$cos\ (A + B) = cos\ A\ cos\ B - sin\ A\ sin\ B$$
$$cos\ A - cos\ B = -2\ sin\ \tfrac{1}{2}(A + B)\ sin\ \tfrac{1}{2}(A - B)$$

6. $$Sin\ \tfrac{1}{2} A = \sqrt{\frac{(s-b)\ (s-c)}{bc}}$$

7. Solve the equations

$$\frac{x+4}{3} - \frac{7-x}{x-3} = \frac{4x+7}{9} - 1;$$

$$\frac{x}{a+x} = \frac{a+x}{x} - \frac{2a-b}{2x};$$

$$\left.\begin{aligned} 2x - \frac{y+3}{4} &= 7 + \frac{3y-2x}{5} \\ 4y - \frac{8-x}{3} &= 24\tfrac{1}{2} - \frac{2y+1}{2} \end{aligned}\right\};$$

$$\tfrac{5}{7}(x-9) + \tfrac{7}{5}(x-5) = \tfrac{2}{5}(x-7) + 1\tfrac{2}{3}.$$

8. A certain number consists of two digits whose difference is 3; and if the digits be inverted, the number so formed will be $\frac{4}{7}$ of the former; find the original number.

9. Prove that $\sqrt{a}\ \sqrt{b} = \sqrt{ab}$; and $a^0 = 1$.

10. Find the least common multiple of

$$4(a^3 - ab^2),\ 12(ab^2 + b^3),\ \text{and}\ 8(a^3 - a^2 b)$$

11. Reduce to its lowest terms

$$\frac{x^4 + a^2 x^2 + a^4}{x^4 + a x^3 - a^3 x - a}$$

12. Reduce to its simplest form

$$\frac{x+y}{y} - \frac{2x}{x+y} + \frac{x^2 y - x^3}{x^2 y - y^3}.$$

INTERMEDIATE EXAMINATION.

EUCLID—ARITHMETIC.

THURSDAY, APRIL 6TH:—MORNING, 9 TO 12.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. If a straight line be divided into two equal, and also into two unequal parts, the squares on the two unequal parts are together double of the square on half the line and of the square on the line between the points of section.

a. If the point of unequal section is taken on the line produced, show that the same theorem is still true, using the proof already written with any slight modifications that may be necessary.

2. Give Euclid's definition of a tangent to a circle, and also that of Modern Geometry, and show according to both that it must be a perpendicular to the diameter at its extremity.

3. From a given circle cut off a segment containing an angle equal to a given angle.

4. Construct an isosceles triangle, each of whose base angles shall be double the vertical angle.

a. Inscribe a regular decagon in a given circle.

5. If four right lines be proportional, the similar rectilinear figures similarly described on them are also proportional.

N.B. Show the necessity for the words "similarly described."

6. Equiangular triangles have the sides about the equal angles proportional, and the homologous sides are opposite the equal angles.

a. Take any number of points O, A, B, C, &c., on a given right line; at the points A, B, C, &c., erect perpendiculars proportional to the distances OA, OB, OC, &c.; prove that the extremities of the perpendiculars are in a straight line passing through a fixed point.

7. If two triangles ABC, DEF, are equal in area and have the sides $AB : EF :: DE : BC$, then the angles at B and E are equal or supplemental.

8. Extract the square roots of 1.345 and .1345.

9. Find the value of $\frac{3}{4}$ $\left(\frac{\frac{3}{4} - \frac{2}{5}}{3 - .08}\right)$ as a vulgar fraction, and reduce the result to a decimal.

10. The first, second and fourth terms of a proportion are 2.013, .0013 and .0001, find the third term.

11. Find the interest on £370 5s. 8d. for 84 days at $5\frac{1}{2}$ per cent. per annum.

12. The volumes of spheres are proportional to the cubes of their diameters; the volume of a sphere whose radius is 1 foot, is 4.1888 cubic feet; find the weight of the earth regarded as a sphere whose radius is 4000 miles, if it be $5\frac{1}{2}$ times as heavy as a globe of water of the same size, and a cubic yard of water weigh three-quarters of a ton.

INTERMEDIATE EXAMINATION.

TRIGONOMETRY—ALGEBRA.

FRIDAY, APRIL 7TH:—MORNING, 9 TO 12.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Regarding the earth as a sphere whose diameter is 7912½ miles, calculate the length in feet of an arc subtending an angle of one second at its centre.

2. Prove that the area of a triangle is given by the formula:—

$$\text{Area} = \frac{b\,c\,\sin A}{2}$$

a. Prove also that it is equal to

$$\frac{c^2}{2}\,\frac{\sin A \sin B}{\sin C}$$

3. Prove

$$\sin A + \sin B = 2 \sin \tfrac{1}{2}(A+B) \cos \tfrac{1}{2}(A-B)$$
$$1 - \cos A = 2 \sin^2 \tfrac{1}{2} A$$

4. In a right angled triangle given one side 1157 and the angle adjacent to it 58° 3′ 27″, find the hypotenuse.

5. In any triangle given $a = 53.24$, $b = 31.27$, $C = 126° 36′ 6″$, find A.

6. To find the distance between two houses on the opposite side of a river, a base line of 500 yards is measured, and the angles which each house makes with the base-line are observed to be 118° 20′ and 46° 14′ at one extremity, and 88° 48′, 33° 12′ at the other, what is their distance?

7. State and prove the rules for multiplication, division, extraction of roots and powers by logarithms.

8. Solve the equations

$$\frac{2x}{x-4} + \frac{2x-5}{x-3} = 8\tfrac{1}{3};$$

$$\frac{132x+1}{3x+1} + \frac{8x+5}{x-1} = 52;$$

$$\frac{x}{b} + \frac{y}{c} = 1; \quad \frac{ax}{c} - \frac{by}{a} = 0;$$

$$\frac{ax}{b} + \frac{ex}{f} = gx + \frac{1}{f}\,(fh - ex).$$

9. Find the area of a rectangle which is such that if it were 5 feet broader and 4 feet longer, it would contain 116 feet more; but if it were 4 feet broader and 5 feet longer it would contain 113 ft more.

10. A surd cannot equal the sum or difference of a rational quantity and a surd, or of two dissimilar surds.

11. Find the greatest common measure of
$$x^4 - 2x^3 + x^2 - 8x + 8 \text{ and } 4x^3 - 12x^2 + 9x - 1.$$

12. Reduce to its simplest form
$$\frac{1\frac{4}{5} - \frac{2}{3}(x+2)}{\frac{3}{10}(x+1)}$$

3. Find $\sin x$ from the equation
$$a \sin x + b\sqrt{1 - \sin^2 x} = c$$

THIRD YEAR.

MECHANICS—HYDROSTATICS.

TUESDAY, APRIL 4TH:—MORNING, 9 to 12.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Define the moment of a force with respect to a point; show that it may be represented by double the area of a triangle; and use this representation in proving that for any point on the resultant of two forces whose directions intersect the moments are equal and opposite.

2. If there are two blocks of pulleys—one fixed, the other moveable—each containing several sheaves, prove that the weight supported will be equal to the power multiplied by twice the number of sheaves in a block.

3. A false balance has its arms in the ratio of 15 to 16; tea sold at 75 cts. per lb. is weighed in the pan suspended from the longer arm, find the price per lb. really paid for it.

4. Prove that the space described by a falling body between the *nth* and $(n-p)$ th second is $16\ p\ (2n-p)$ feet.

5. Find the velocity acquired by a railway train in running down a gradient of 2164 feet, having a total fall of 31 feet; the force of gravity being 32.19, and the resistance from friction and the air being estimated at 7 lbs. per ton.

6. Prove that the velocity acquired by a body in falling down the arc of a vertical circle is given by
$$v^2 = \frac{g}{l}(a^2 - x^2)$$

7. A heavy ball, suspended by a fine wire, vibrates in a small arc, 48 vibrations are counted in three minutes. Calculate the length of the wire.

8. Prove the following equation for the diving-bell, where x feet is the difference of level of the water at the surface and in the bell, w is the additional weight of air forced in, and W, V, P, T, &c., are the weight, volume pressure and *absolute* temperature before and after it has sunk:—

$$1 + \frac{w}{W} = \frac{V' T}{V T'} \left(1 + \frac{x}{P}\right)$$

9. Prove that the product of the volume and pressure of a given mass of gas, divided by its absolute temperature, is constant.

10. What is the volume of 1,000 grains of carbonic acid gas (sp. gr. = 1.529) at the temperature 40° Fahr., and pressure of two atmospheres.

11. Describe the *pipette* and its use. How would you calculate the elastic force of the air inside above the liquid?

12. If a homogeneous body float in a liquid, its whole volume will be to that of the part immersed, in the inverse ratio of the specific gravities of the body and of the liquid.

THIRD YEAR.

ASTRONOMY—OPTICS.

MONDAY, APRIL 3RD:—MORNING, 9 TO 12.

Examiner,..... ALEXANDER JOHNSON, LL.D.

1. Define Right Ascension, Declination, Latitude and Longitude, Polar distance, Altitude, Azimuth, Zenith distance, Vertical Circles, Prime Vertical, Meridian, Equator, Ecliptic; giving separate definitions for those which belong to both celestial and terrestrial globes.

2. In laying down the positions of the Stars on a celestial globe, what angular distances must be ascertained? State the observations necessary to ascertain these, and the instruments used in making them. What difficulty had Hipparchus in forming the first map of the Stars which we have not, and how did he get over it?

3. Prove that the enlightened part of the Moon visible to us is proportional to the external angle at the Moon contained by lines drawn to the Earth and Sun, and use this in accounting for the Phases.

4. Investigate the method of ascertaining the Moon's Horizontal Parallax. Assuming this parallax to be 57′ 6″, calculate the distance of the Moon.

5. Account for a Solar Eclipse. Why does it not occur once a month? Under what circumstances will it be partial, annular, or total.

6. The Altitude of the Pole at any place is equal to the latitude of the place.

7. A pencil of rays diverging from a point on the axis falls on a concave spherical mirror whose radius is r, prove that those very near the axis will, after reflection, meet approximately in a point, and find the position of this point, the distance of the source of light from the surface being D.

8. Find the radius of the spherical surface of a double convex lens whose focal length is 33 centimetres, and show how to calculate its thickness if the aperture be given ($\mu = \frac{3}{2}$).

9. Define chromatic aberration of a lens. If the sun's rays be brought to a focus by a convex lens, and the light be received on a sheet of paper placed, 1°—beyond the focus, 2°—between the focus and lens, what difference will there be in the color of the edges of the circles of light? Explain the facts with the help of a diagram.

10. In a Newtonian Telescope the focal length of the object speculum is 3 feet, the focal length of the eye-glass is ½ inch, and the distance of the eye-glass from the plane mirror is 3 inches; find the proper distance of the mirror from the speculum requisites for distinct vision in the case of an object 100 feet distant.

11. Investigate the principle of Hadley's Sextant.

12. State the laws of Refraction, and describe the mode of proving them.

B. A. ORDINARY EXAMINATION.

ASTRONOMY—OPTICS.

MONDAY, APRIL 3RD.—MORNING, 9 TO 12.

Examiner,..... ..... ALEXANDER JOHNSON, LL.D.

1. State the facts which led some at one time to doubt the applicability of the law of gravitation to Uranus; state also the discovery to which they led, and explain the manner in which it was made.

2. State the established phenomena of Shooting Stars, pointing out those which prove that their origin is outside the earth; give the theory concerning them generally, and the November shower more particularly.

3. Draw a diagram representing the path of Mars in the sky, showing when the planet appears stationary, and when its motion is retrograde or direct. Explain the facts by describing the true motions.

4. The mean diameter of the Sun seen from the Earth is 1923″; the mean diameter of the Earth seen from the Sun is 17″.9; hence show that the Moon must always pass through the shadow of the Earth when in opposition, unless she pass over or under it.

5. Describe the lunar method of finding the longitude.

6. Define and account for Precession and Nutation.

7. A large concave mirror, of 14 inches focal length, is used to bring the

sun's rays to its focus; a small convex mirror of 3 inches focal length is then placed at 12 inches distance from the first, (their axes coinciding) so as to intercept the rays; find the position of the image formed by this last mirror.

8. A ray of light passes through a glass ($\mu = \frac{3}{2}$) prism of 60° angle, making the angles with the perpendiculars to the surfaces at incidence and emergence equal; find these angles.

9. A ray of light is reflected from a concave spherical mirror, prove that the distances of the points where it cuts the axis from the centre are in the same ratio as their distances from the surface.

10. An image of the sun is formed on the axis of a convex lens of 13 inches focal length; a concave lens of 10 inches focal length is then placed at 3 inches distance from the convex lens, on either side (the axes coinciding); find the position of the image, and whether it is real or virtual. Consider both the cases.

11. Describe the construction of the simple microscope, and calculate the magnifying power if an object be placed $\frac{1}{20}$th part of an inch beyond the focus of the object-glass whose focal length is $\frac{1}{4}$ of an inch, the focal length of the eye-glass being $\frac{3}{4}$ths of an inch, and the instrument being used by a person of 10 inches distance of distinct vision.

12. Define the *dispersion* of a prism, and investigate the formula for calculating it given in the text-book. State the two conditions necessary to the truth of the formula.

B. A. ORDINARY EXAMINATION.

MECHANICS—HYDROSTATICS.

TUESDAY, APRIL 4TH:—MORNING, 9 TO 12.

Examiner,..... ALEXANDER JOHNSON, LL.D.

1. State the postulates in Duchayla's proof of the Composition of Forces, and prove that the resultant of two forces meeting in a point, of which one is double the other, is in the direction of the diagonal of the parallelogram formed by these forces.

2. Three forces meeting in a point are parallel and proportional to the sides of a triangle, prove that they are in equilibrium.

a. If the forces are 2, $\sqrt{6}$, and $1 + \sqrt{3}$, pounds respectively; find the angles between their directions.

3. If the force required to draw a load on a horizontal road be part of the weight of the load; find the force necessary to draw it up a the slope of which is one foot in n feet.

4. A horse drawing a waggon at the rate of 2 miles per hour exerts a traction of 154 lbs., what is the work done per minute?

5. Explain clearly what is meant by a constant force of 11.16 feet and find how long it must act to produce a velocity of 100 feet per second.

6. Describe Galileo's method for proving experimentally the laws of rectilinear motion under the action of a constant force.

7. Find the component of the centrifugal force which transports the materials of the earth's crust to the equator, and show that it is a maximum near the latitude of Montreal.

8. If a balloon be inflated with coal gas (sp. gr.=0.5.) show that its ascensional force may be found by multiplying the number of cubic fathoms of gas by $8\frac{1}{4}$ lbs., and deducting the weight of the car and balloon.

9. State the principle of the Bramah press, and describe the contrivance by which the difficulty in its practical application was overcome.

10. If the height of the cistern of a suction and lifting pump be 42 feet; the diameter of piston $4\frac{1}{2}$ inches, the length of the handle 49 inches, and the distance of the fulcrum from piston-rod $3\frac{1}{2}$ inches; calculate the force required in pumping.

11. The weight of 100 cubic inches of *dry* air at temp. 60° Fahr. and pressure 30 inches being 31.0117 grains, calculate the weight of a cubic foot of *moist* air, the barometer standing at 29.52, the thermometer at 56° Fahr.; the elastic force of the vapor being .402 and its specific gravity .622.

12. At the pressure 14.36 lbs water boils at 211° Fahr.; find the relative volume of the steam produced.

B. A. ORDINARY AND THIRD YEAR.

EXPERIMENTAL PHYSICS—LIGHT—HEAT.

TUESDAY, APRIL 4TH:—AFTERNOON, 2 TO $4\frac{1}{2}$ P.M.

Examiner,..... ..... ALEXANDER JOHNSON, LL.D.

1. Describe Newton's method of producing the *solar spectrum*. In what does the present method differ from this, and why? State Newton's division of the colors in it. When prisms of different substances, solid or liquid, are used, in what respects are the spectra all alike, and in what do they differ? How is the normal spectrum produced?

2. When a beam of light passes through a prism, what is meant by the *minimum deviation?* How may it be found experimentally on the screen?

3. Define *irradiation*, explain its cause, describe an experiment illustrating it, and mention one striking instance of it in nature.

4. Describe an experiment showing the production of *accidental images*—and explain them.

5. Define *interference* of light, pointing out analogies; and describe the experiment with Fresnel's mirrors as an example of it.

6. Describe the construction of a *Nicol's prism*, and explain its use.

7. Describe Dulong & Petit's method for finding the co-efficient of absolute expansion of mercury.

8. A sphere of 5 inches radius is full of mercury at the temperature of 158° Fahr., the mercury is poured out into water of the temperature 39° Fah., which half fills a cylinder 16 inches in height and 8 inches in radius; find the temperature of the mixture, the specific heat of the mercury being .033, its specific gravity *at* 32° *Fah.*, being 13.596, and its co-eff. of expansion for 1° Fah. being $\frac{1}{10000}$.

9. A gallon of water is heated in a Papin's digester to 282° Fah.; the valve is then opened and part of the water is vaporized, the remainder sinking to 212° Fah. Calculate the fraction of the gallon turned into steam.

10. Describe an experimental proof showing that the intensity of radiant heat varies inversely as the square of the distance.

11. Placing a thermometer in the receiver of an air-pump and working the pump, I notice a change of temperature; forcing air from a bellows against the face of a thermo-pile a change is indicated by the galvanometer also; state the changes and account for them on the dynamical theory.

12. Two bright tin cans exactly alike in all respects are filled with boil ing water after one of them has been covered with flannel stretched tightly over it; which will keep the water hot longest? Describe an experiment in proof of your statement.

SPECIAL EXAMINATION IN MATHEMATICS AND NATURAL PHILOSOPHY.

(FOR STUDENTS IN ENGINEERING.)

THURSDAY, APRIL 6TH:—MORNING, 9 TO 12.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Explain the method of finding the meridian line by equal altitudes of the sun; and find the correct reading of the azimuth circle for the true meridian in the following example where equal altitudes were observed in May for the upper limb of the sun at

9h. 54m. 27s. A.M.
and 2h. 5m. 46s. P.M.
Latitude = 51° 23′ 40″ N.;
Readings of azimuth circle were 311° 47′ 20″ in forenoon,
and 47° 45′ 50″ in afternoon;

Change of Sun's declination in one hour of mean time = 37.53."
The formula for correction is

$$\frac{D}{2} \times \text{sec. lat.} \times \text{cosec} \frac{H}{2}$$

where H = angular motion of sun between the observations, D = change of declination.

2. Find the latitude of a place from the following observation of the Sun on the meridian and other data :—

Observed zenith distance of upper limb	27° 59′ 39″.53
Semi-diameter	15′ 46″.05
Refraction	29″.49
Parallax	3″.93
Declination (North)	23° 12′ 47″.30

3. If paviours work under the following conditions, calculate the work done per day by each man :

Weight of rammer	79 lbs.
No. of blows	78 in 2 m. 45 s.
Rest	3 m. 30 s.
Height lifted	16 inches.
Hours of labour	10 hours.

4. If a railway carriage weighing 7.21 tons, moving at the rate of 30 miles per hour, describe a portion of a circle whose radius is 460 yards, calculate the centrifugal force in tons.

5. If a velocity of 42.310 feet be produced in one second in a cubic inch of gold (sp. gr. = 19.35) find the magnitude of the force in grains required to produce the velocity

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6. A ship in sailing into a river sinks 2 inches, and after discharging 12,000 lbs. of her cargo rises 1 inch : determine the weight in tons of the ship and cargo, the sp. gr. of sea water being 1.026.

7. To find the distance between two rocks, A and B, at sea, I make observations from each rock on two objects, C and D, ashore, which are distant 2¼ miles from each other, and find the compass bearings

From A of C, 51° 30′ E. of N.	From B of D, 22° 00′ E. of N.
" " D, 72° 00′ E. of N.	" " C, 11° 30′ W. of N.
" " B, 32° 30′ S. of E.	" " A, 57° 30′ W. of N.

Find the distance between the rocks.

8. The cliffs on a headland are known to be 600 feet in height; at what distance is a ship from the coast when they begin to appear above water?
(N. B. Prove any formula employed.)

9. The three sides of a triangle are 270, 320 and 90 yards respectively find the angle opposite the last side.

10. The differences between the hypotenuse and two sides of a right angled triangle are 3 and 6 respectively, find the sides.

HONOUR EXAMINATIONS.

FIRST YEAR.

GEOMETRY.

FRIDAY, APRIL 21ST :—MORNING, 9 TO 1.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Given the base and the difference of the sides of a triangle, the polar of the vertex with respect to one extremity of the base as origin always touches a fixed circle.

2. If two circles touch three given circles, the three chords of contact meet in a point, which is the radical centre of the three, and a centre of similitude of the two.

3. If through either of the limiting points of a system of circles having a common radical axis, a straight line be drawn intersecting any circle of the system, and, if perpendiculars be drawn from the points of intersection to the radical axis, the rectangle under the perpendiculars is constant.

4. Prove that the anharmonic ratio of four points on a circle is the same as the ratio of the rectangles under the opposite sides of the quadrilateral formed by joining the four points.

5. Given two unequal straight lines, find the arithmetic, geometric and harmonic means between them, and prove that the geometric mean is a mean proportional between the other two means.

6. Any straight line meeting a circle and the sides of any inscribed quadrilateral is cut in involution.

7. Given the rectangle under the sides, the bisector of the base, and the difference of the base angles; construct the triangle.

8. Describe a circle, which shall bisect the circumference of three given circles.

9. Through a given point within a given angle draw a straight line cutting the legs of the angle, so that it shall be divided at the point in a given ratio.

10. Inscribe in a given triangle a parallelogram of a given area not exceeding half the given triangle.

11. If two triangles be on equal bases and between the same parallels, the two sides of each triangle intercept equal segments on any straight line parallel to the base.

12. The centre of the circumscribed circle, the intersection of the bisectors of the sides, and the intersection of the perpendiculars of a triangle, lie in the same straight line.

FIRST YEAR.

ALGEBRA.

MONDAY, APRIL 24TH:—MORNING, 9 TO 12.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Prove that the sum of all the numbers which are composed of the same digits is divisible by the sum of the digits.

2. Find two fractions having 7 and 9 for their denominators, and their sum $\frac{57}{63}$.

3. By the Method of Indeterminate Coefficients show that
$$\sqrt{1 + x + x^2 + x^3 + \&c.} = 1 + \tfrac{1}{2}x + \tfrac{3}{8}x^2 + \tfrac{5}{16}x^3 + \&c.$$

4. Prove that for any positive integral value of n
$$n^n - n\,(n-1)^n + \frac{n\,(n-1)}{1.2}\,(n-2)^n - \&c. = 1.2.3....n.$$

5. Find a series of converging fractions for $\frac{314159}{100000}$.

6. If n be the number of terms in an Harmonical Progression, and a and l be the extremes; find the intervening terms.

7. State and prove the conditions necessary that a vulgar fraction be convertible into (1)—a terminating, (2) a circulating decimal.

8. The number of combinations of $n + 1$ things 4 together is 9 times the number of combinations of n things 2 together, find n.

9. The number of permutations of n letters whereof p are a's, q are b's, r are c's is
$$\frac{1.2.3. \ldots. n}{1.2.3 \ldots. p \times 1.2.3\, q \times \&c.}$$

10. A railway passenger observes that a train passes him, moving in the opposite direction in 2′, whereas if it had been moving in the same direction it would have passed him in 30″; compare the rates of the two trains.

11. If $2\frac{1}{4}$, 1 be the first and third terms of a Geometrical Progression, find the sum of the series *ad infinitum*.

12. Solve the equations
$$\sqrt[3]{x} + \sqrt[3]{y} = 3$$
$$x + y = 9$$

SECOND YEAR.

ANALYTICAL GEOMETRY.—CALCULUS.

FRIDAY, APRIL 21ST:—MORNING, 9 TO 1.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Find the radius of curvature at any given point on a central conic.

2. Define the *eccentric angle;* explain its use in denoting the position of a point or an ellipse, and find expressions for the lengths of two conjugate semi-diameters in terms of it, showing thence that the sum of their squares is constant.

3. If the first three terms of the general equation of the second degree form a perfect square, show that there is only one direction in which a system of lines can be drawn to meet the curve at infinity, and give the geometrical interpretation of the equation.

4. In the hyperbola the difference of the focal radii is constant and equal to the transverse axis.

5. If a circle be inscribed in a triangle and each vertex of the triangle joined to the point of contact of the circle with the opposite side, the three joining lines will meet in a point.

6. Find the equation of the line joining the centres of the circles inscribed and circumscribed to the triangle the equations of whose sides are

$$\alpha = 0;\ \beta = 0;\ \gamma = 0.$$

7. Find the area of the triangle formed by the three lines

$$Ax + By + C = 0,\ A'x + B'y + C' = 0,\ A''x + B''y + C'' = 0.$$

8. Find the equation of the line bisecting the angle between two lines.

$$x \cos \alpha + y \sin \alpha - p = 0,\ x \cos \beta + y \sin \beta - p' = 0.$$

9. Find in general the equations of the perpendicular from the vertices on the opposite sides of a triangle the co-ordinates of whose vertices are given, and prove thus that the perpendiculars meet in a point.

10. Given $u = \dfrac{\sqrt{1 - x + x^2}}{\sqrt{1 + x + x^2}}$ find $\dfrac{du}{dx}$

11. Given $2ux + au^2 - bx^2 = 0$ find $\dfrac{du}{dx}$

12. Differentiate x^x, $x^{\frac{1}{x}}$, $x\, e^{\tan^{-1} x}$.

13. Expland $tan^{-1} x$ by MacLaurin's theorem and thence show that

$$\frac{\pi}{4} = 1 - \tfrac{1}{3} + \tfrac{1}{5} - \tfrac{1}{7} + \tfrac{1}{9} - \&c.$$

14. State and prove the rules for determining the maximum and minimum values of a function, first defining the terms.

15. Find the following integrals:

$$\int_x \frac{x^5}{1+x^2}\,; \int_x \frac{2x-5}{(x+3)(x+1)^2}\,; \int_x \frac{1}{1+x+x^2}\,.$$

16. Find a formula of reduction for

$$\int_x \frac{x^m}{(1+x^2)^n}\,; \int_x \frac{x^m}{\sqrt{2ax-x^2}}\,.$$

7. Find the following integrals:

$$\int_x x^3\sqrt{1+x^2}\,; \int_x x^m (\log x)^n\,; \int_\theta \frac{(\sin\theta)^5}{(\cos\theta)^2}$$

SECOND YEAR.

ALGEBRA—TRIGONOMETRY.

MONDAY, APRIL 24TH:—MORNING, 9 TO 1.

Examiner,.....ALEXANDER JOHNSON, LL.D.

1. Prove that if two numbers substituted for x in a rational integral expression $f(x)$ give results with contrary signs, one root at least of the equation $f(x) = 0$ lies between those values of x.

2. If a, b, c, be the roots of the equation

$$x^3 + px^2 + qx + r = 0$$

form the equation of which the roots are

$$\frac{a}{b+c}\,; \quad \frac{b}{c+a}\,; \quad \frac{c}{a+b}\,.$$

3. Investigate the conditions necessary in order that the equation

$$x^4 + qx^2 + rx + s = 0$$

may have three equal roots.

4. The numerically greatest negative co-efficient increased by unity is a superior limit to the positive roots of an equation which is in its simplest form.

5. Solve the equation

$$2x^6 + x^5 - 13x^4 + 13x^2 - x - 2 = 0$$

6. Using Cardan's rule, solve the equation

$$x^3 + 6x - 20 = 0$$

7. State and prove Sturm's theorem.

8. Calculate by Horner's method the real roots of the equation

$$x^3 + x - 3 = 0$$

9. The sine of any angle of a triangle is equal to the ratio of the opposite side to the diameter of the circumscribed circle.

10. State and prove Demoivre's theorem for a positive integral and for a fractional index.

11. Prove

$$\cos a = 1 - \frac{a^2}{1\cdot 2} + \frac{a^4}{1\cdot 2\cdot 3\cdot 4} - \&c.$$

12. Prove the rule for using "*proportional parts*" in logarithms.

13. The three angles of a spherical triangle are respectively 70° 39′, 48° 36′, and 119° 15′, find the side opposite the first angle.

14. The two sides of a right-angled spherical triangle are 42° 12′ and 54° 41′ 28,″ find the hypotenuse.

15. In a spherical triangle prove

$$\cot \tfrac{1}{2}(A + B + C - 180°) = \frac{\cot \tfrac{1}{2} a \cot \tfrac{1}{2} b + \cos C}{\sin}$$

ENGLISH AND RHETORIC.

FIRST YEAR.

ENGLISH LANGUAGE AND LITERATURE.

TUESDAY, APRIL 11TH :—MORNING, 9 TO 12.

Examiner..... ....VEN. ARCHDEACON LEACH, D.C.L.

1. Enumerate as many words as you can that passed from the Latin nto the Anglo-Saxon and thence into the present English.

2. Give the dates of the commencement and termination of the Anglo-Saxon period ; of the dark and middle ages of England.

3. Give an account of the local distribution of the Celtic tongues, and of the principal productions in prose and verse, during the Anglo-Saxon period, in Ireland and Wales.

4. Whence arose the cultivation in England of Latin Literature during the dark ages ? Who were they that cultivated it? And give some account of their works.

5. Give the distinctive characteristics of Anglo-Saxon prose and poetry.

6. What chiefly was the subject matter of the Anglo-Saxon original prose compositions during the period ?

7. What species of literature was successfully cultivated during the twelfth century ? By whom cultivated, and by what facilitated ?

8. State the origin of the Crusades ; the period over which their action continued, and some of their principal effects, social and religious

9. Give an account of the two languages of France during the Norman times.

10. Give an account of the Fabliaux and the Romances of Chivalry.

11. Mention the principal productions in English prose, during the earlier half of the fourteenth century, and the historical events that were favourable to the cultivation of literature.

12. Which are the remarkable poetical productions that belong to the latter half of the fourteenth century ?

13. Give an account of the introduction of printing into England.

14. State the sources of evidence for the existence of dialectic differences among the Anglo-Saxons; and say how they are to be accounted for.

15. When commenced the present changes from Anglo-Saxon into the present English? And in what dialect were they soonest observable ?

16. State the inflexional changes that have taken place in the transition from Anglo-Saxon to the present English.

17. Translate and analyze grammatically the following passage :— Thá ongann monn secgan be thám hearpere, thaet he mihte hearpian thaet se wudu wágode for thám swege, and wilde deor thaer woldon to-irnan and standan swilce hí táme waeron, swa stille theáh hí menn oth the hundes with eódon that hí he ná ne onscunedon. Thá saedon hí thaet thaes hearperes wíf sceolde acwelan and hire sawle mon sceolde laedan to helle.

INTERMEDIATE EXAMINATION.

ENGLISH LANGUAGE AND LITERATURE.

TUESDAY, APRIL 11TH:—MORNING, 9 TO 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give the substance of Spalding's remarks on the uses and nature of literature and the proper ends that ought to be sought in the cultivation of it.

2. Give some account of the distinguished ecclesiastics, natives of England or Ireland, and of foreigners that resided in England during the Anglo-Saxon period.

3. Mention the peculiarities that marked the early Anglo-Saxon literature.

4. How is the legendary character of all early poetry accounted for?

5. Give the substance of what is said in regard to the history and writings of Caedmon.

6. Mention the principal events in history that affected the condition of England during the thirteenth century.

7. How are the Gothic languages of the continent and the classical group of languages now distributed?

8. Give the substance of the remarks on the section of "The Language of Scotland."

9. State at what periods and to what extent the Latin language affected the English.

10. State the immediate and more remote effects of the Reformation on English Literature.

11. To whom does England owe the first translation of the Holy Scriptures? When was it made?—from the original language or from translation?

12. How is the Scandinavian element in the English Language to be accounted for?

13. Give some account of the origin and character of the Chivalric Romance literature.

14. Give the substance of the remarks on the Prologue to the Canterbury Tales.

15. Give an outline of *the Prioresses Tale*.

16. Give the substance of the critical remarks on the productions of Dunbar.

17. How is the Thistle and the Rose of Dunbar characterized? and what constitutes the *importance of the occasion* that led to its composition?

18. Give some account of the poetical relics of works in A. S. composed before the Anglo-Saxon invasions.

19. How has it happened that fewer changes have been made on the inflections of the verb than on those of other parts of speech, as nouns pronouns, &c.

THIRD YEAR.

RHETORIC.

TUESDAY, APRIL 11TH :—MORNING, 9 TO 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L

1. Why should address to the feelings be indirect?

2. Explain the rhetorical artifice for the diversion of feelings.

3. Show that perspicuity is not inconsistent with ornament.

4. How are Epithets distinguished from Adjectives? What is stated as the only safe rule with regard to the use of Epithets? and give the general caution respecting it.

5. Explain what is meant by the expression "frigid style."

6. State the grounds upon which the use of uncommon words or expressions, especially when excessive, is objected to.

7. Illustrate the form of expression called "Echo to the sense"; show whence it arises and state the practical rule concerning it.

8. Give the substance of the remarks on the Theological style.

9. What are the means that may be employed to obviate the inconveniences apt to accompany an energetic brevity of style?

10. Explain the advantages which the English language possesses in regard to the use of the figure of speech, personification.

11. State and illustrate the rules for the use of Metaphors and Similes.

12. State and illustrate the method suggested by Whately, to reconcile conciseness with perspicuity.

13. With regard to Amplification, what are the determining circumstances for the consideration of the Orator?

14. Explain what is meant by the natural order of words in a sentence, and show how emphatic words may be properly indicated.

15. Distinguish, by examples, between loose sentences and those of periodic structure, and give the reasons why written or spoken language demands generally the one or the other form as the more appropriate.

16. Show, by examples, how the use of Antithesis is conducive to conciseness.

17. Whence arises the effect of the employment of Interrogation? And state the rules for the use of it.

18. What is meant by Elegance of Style? and mention the suggestions given for the attainment of it.

19. Show that Poetry is not constituted such by the thoughts only.

B.A. ORDINARY EXAMINATION.

ENGLISH LANGUAGE AND LITERATURE.

WEDNESDAY, APRIL 12TH:—MORNING, 9 TO 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. How was the *discovery* of the sanscrit an important improvement in linguistic study?

2. Show that no languages can be regarded as entirely pure and unmixed.

3. What estimate does Dr. Marsh form of the Moeso-Gothic as a part of linguistic science?

4. Upon what grounds is it believed that no considerable body of Germans settled in Britain before the fifth century?

5. Mention the three chief authorities for the Saxon conquest, and say what you believe as to their competency and credibility as historians.

6. What facts serve to show that the Celtic population in England, after the Norman conquest was great—"more considerable than is commonly supposed?"

7. What are the conditions that make the etymology of words useful as giving a just conception of their meaning?

8. What causes are assigned for the comparatively late development of English?

9. Give the substance of what is said in regard to the diffusion of words.

10. State the criteria given by Marsh for the origin of English words.

11. Mention the principal losses in regard to poetic dialect that the present English has sustained.

12. Show, in regard to the composition of words, that the Anglo-Saxon had greater power than the present English.

13. The relations between man and his speech, though not susceptible of precise formulation, may yet be approximately determined—how?

14. Explain the relation that subsists between unity of speech and the unity of a people.

15. Show how a deficiency of a moral vocabulary impedes the Christianization or civilization of a people.

16. Explain what is meant by the reaction of words.

B. A. ORDINARY EXAMINATION.
ENGLISH AND HISTORY.
HISTORY.—GIBBON.

TUESDAY, APRIL 18TH:—AFTERNOON, 2 TO 5.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Of what number did a Roman legion consist, and in what respects did it differ from the Prætorian Guards?

2. What particular privileges were accorded to the Italians as distinguished from the provinces of the empire?

3. Describe the Imperial Government as instituted by Augustus.

4. Explain the titles, Princeps, Imperator, Proconsul, Legati, Procurator Præfectus, Censor.

5. What were the functions of the Senate under Augustus and his successors?

6. How did the deification of the emperors take place?

7. In what terms is the condition of the empire between the death of Domitian and the accession of Commodus described? Give the names of the intermediate emperors.

8. Give an outline of the history of Zenobia and Palmyra.

9. Describe the form of the civil and military administration in the East from the accession of Constantine till the beginning of the fifth century.

10. Describe the private life of Julian, and mention the cause of his apostacy.

11. Give a short account of the life of Athanasius.

12. Give an account of Justinian's endeavours to reform the Roman Jurisprudence.

13. Mention the different books into which the Institutes are divided.

14. State and explain the different kinds of proprietorship and the order of hereditary succession.

15. Mention the crimes that by the Laws of the Twelve Tables were adjudged worthy of death.

B. A. ORDINARY EXAMINATION.
ENGLISH AND HISTORY.
HISTORY.—HUME.

TUESDAY, APRIL 18TH:—MORNING, 9 to 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give a short account of the life and character of Dunstan.

2. Whom did Henry I. marry and to whom thence does the line of the Saxon Kings of England reach back. Which were the Danish kings of England, and how long did they hold the Sovereignty?

3. State the opinion of Hume in regard to the true epoch of the House of Commons and that now received as the correct opinion of the question. Explain the titles of nobility.

4. Mention the principal events in the life of Edward III.

5. Give the substance of the remarks on the Progress of the Constitution during the Plantagenet era, and on the Common Law as it was at the end of that period.

6. Mention the great events that in Europe, about the time of the accession of the Tudors, concurred to influence powerfully and favourably the European States.

7. How far did Henry VII. take any part in the discovery of America?

8. Give some account of the popular insurrection in Essex and Kent in the reign of Richard II.

9. How was the deposition of Richard brought about, and what is the determining circumstance that should prevent our considering the Lancastrian Kings as usurpers of the throne?

10. Give some account of Wickliffe, his doctrines and influence.

11. Describe the battle of Agincourt.

12. How and when did the decline and termination of the English wars in France come to pass?

13. Give some account of the popular insurrection in the reign of Henry VI.

14. Give the substance of Hume's account of the life and character of Cardinal Wolsey.

B. A. EXAMINATION FOR HONOURS.

ENGLISH LITERATURE.—ANGLO-SAXON.

WEDNESDAY, APRIL 5TH :—MORNING, 9 TO 1.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Mention some of the rules that have been given for determining whether from the Latin immediately or through the French, English words of Latin origin have been formed.

2. From what case of Latin nouns are French nouns that are derived from Latin, formed?

3. Mention the causes that have been assigned for the transition of the language from Anglo-Saxon to Semi-Saxon.

4. What evidence is there for a diversity of dialect in the Anglo-Saxon of the Northern and Southern portions of Great Britain; and mention the different opinions given to account for it.

5. Mention the effects of the Norman Conquest upon the language spoken in England, as stated in Craik's History, &c.

6. Give the substance of the remarks upon Layamon's English.

7. Express in modern English the following passage from King Arthur's dream:

Buton mi seolf ieh gond atstonden
Uppen ane wolden
And ich ther wondrien agon
Wide yeond than moren.
Ther ich isah gripes
And grisliche fughelas.
Tha com an guldene leo
Lithen ouec dune.
Deoren swithe hende
Tha ure drihten make.
Tha leo, me orn foren to,
And iueng me be than midle.
And forth hire gan yeongen.
And to there sae wende.

8. Give some examples of the changes that take place in the meaning of words.

9. Show that the demands of physical science, philosophy and logic necessitate additions to our vocabulary.

10. Give some examples illustrative of what has been designated "The poetry of words."

11. Give the substance of Dr. Trench's remarks on the subject of the degeneration of words.

12. What are synonyms? Give the causes of their existence in a language.

ENGLISH LITERATURE.—ANGLO-SAXON.

WEDNESDAY, APRIL 5TH:—MORNING, 9 TO 1.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Write a tabular synopsis of the declensions.

2. Mention the different ways in which secondary nouns are formed;—with examples.

3. How are proper names usually formed in Anglo-Saxon?

4. Give examples of the declension of adjectives Definite and Indefinite.

5. Mention the forms for comparison of adjectives and of adverbs.

6. Give the Dual forms for the personal pronouns first and second.

7. Give the substance of the remarks on the origin and formation of the articles and pronouns.

8. Give all the inflections of a verb of the Simple Order, 1st class.

9. Enumerate the Anglo-Saxon Auxiliary verbs;—and those designated negative verbs.

10. Give the signification of the following prepositions and the cases that they respectively govern:—aer, aet, be, bi, geond, mil, ymbld, of, to, on, oth, butan, mid, for, on, gimang.

11. Translate and notice any peculiarities that occur in the following sentences or phrases:—Eall thaet falc arás and stódon,—on thinum tham halgum naman. The thurh his willan, He wáes aethelre strynde;—Micelre stefne. Scipio, se betsta romana witena; Do ge him thaet sylfe. For thaere wisan, awa tó aldre, geó geara, on gemang tham, on sundron.

12. Translate the following;—Aefter tham the Romeburh getimbred waes VI. hund wintrum and LXVII; Romane gesealdon Caius Julius seofon legion to tham thaet he sceolde fif winter winnan on Gallie. Aefter tham the he hi oferwunnen haefde he fór on Brythonie thaet igland and with tha Bryttas gefeaht and geflymed wearth on tham lande the man het cent-land. Rathe thaes he gefeaht with tha Bryttas eft on cent-land and hi wurdon aflymede. Heora thridde gefeoht waes neah thaere the man haet temese neah tham forda the man haet Welinga-ford.

ENGLISH LITERATURE.

MONDAY, APRIL 17TH:—MORNING, 10 TO 1.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Who were the first that set the example of the method pursued by the schoolmen? Show how the ascendancy of the scholastic philosophy was unfavorable to the cultivation of polite literature in Europe.

2. Which were the earliest of the European Universities? In which was the degree of Doctor and Master of Medicine first given? Give the early part of the history of the Universities of Oxford and Cambridge.

3. How may the various theories that have been proposed on the subject of the origin of romantic poetry and fiction in Europe, be reconciled?

4. Give some account of Roger Bacon and of this work called Opus Majus.

6. Give some account of the Lays of Marie with an outline of the story of any of them you may recollect.

6. Upon what grounds is it held that the early English Metrical romances are translations from the French tongue?:—give the summary historical account of it as found in Craik's history, &c.

8. Give the substance of Mr. Hallam's remarks on the subject of the Metres of modern languages.

8 What are the characteristic properties of the Provençal poetry and which of our English poets have imitated them?

9. When were the Chronicles of Froissart written?—their subject matter and character?

10. Give a short analysis of the poem, Piers Ploughman, and describe its form and versification.

11. Give some account of the Poem of Layamon, its structure and poetical merit.

12. Describe the poem called the Ormulum.

ENGLISH LITERATURE.

TUESDAY, APRIL 18TH:—AFTERNOON, 2 TO 5.

Examiner,.....VEN. ARCHDEACON LEACH, D. C. L.

1. Give an analysis of Shakespeare's Macbeth, with a short critique touching its plot, its characters, and moral tendencies.

2. Give an outline of the subject matter of Chaucer's poem of the Flower and the Leaf, with any remarkable passage or passages you recollect.

3. Give an analysis of the Knight's Tale.

4. Explain the object and plan of Spencer's *Faerie Queen*, and give *an* account of the adventures of the Red-cross Knight in the First Book: show the peculiarities of the diction and versification of the poem.

5. Give an analysis, with critical remarks, of Marlowe's Jew of Malta.

6. To what class of practical composition do you refer the Comus and L'Allegro of Milton? Give the chief characteristics of the thought and expression, with illustrative extracts.

7. For the machinery of Epic poetry, compare the advantages of the mythology of Greece and Rome with those of the religious ideas of the Christian.

8. Explain the three unities in relation to dramatic composition:—how far do they, each or all, appear to be indispensable?

9. What may be said in defence of Fiction as a form of literary composition.

10. Mention the principal objections to Allegory as a form of literary composition.

11. Give some account of the origin of Pastoral poetry; mention the rules for this kind of composition given by Dryden and the principal poems in English that belong to this class.

12. Give the substance of Bacon's Essay—"of Unity in Religion."

ENGLISH HISTORY.

THURSDAY, APRIL 27TH :—AFTERNOON, 2 TO 5.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. What were the principal subjects of legislation in the first Parliament of Elizabeth's reign ?

2. Who were the Ministers most in Elizabeth's confidence ? And give some account of them.

3. How was the Liturgy received in the parishes, and what was the conduct of the Bishops in regard to it ?

4. What was the condition of Scotland during the latter years of Mary Tudor's reign ?

5. State the characteristic differences between the Reformation in England and Scotland, and give some account of the history and character of Knox.

6. What were the changes in French policy, and the particular circumstances therewith connected that gave alarm to the English Government after the peace of Cambray ?

7. What were the terms agreed upon between the two nations after Admiral Winter's blockade of Leith harbour, and what event was it that saved England from an invasion of the French.

8. What were the consequences of the death of Francis to Mary Stuart, and what was the course of action which she thereupon adopted ?

9. Give an account of the formal demand made by Mary Stuart's friends for the recognition of her right to the Crown of England, in 1561, and of Elizabeth's reply.

10. What had been, till 1654, the policy of the Tudor Sovereigns in regard to Ireland ?

11. Give an account of the visit of Charles 1st to Scotland, and mention what, according to Clarendon, were the results that followed thereupon.

12. Give the substance of Clarendon's sketch of the character of Archbishop Laud, and mention the circumstances that rendered him unpopular in the earlier period of his public life.

13. Give some account of the great men who managed the affairs of the English nation at the outbreak of the troubles in Charles 1st's reign.

14. State the chief demands made by the Parliament touching the Royal prerogative, and say how the King acted in regard to these demands.

15. What were the preparations made by the Parliament in anticipation of war, and by the King in self-defence ?

ENGLISH HISTORY.

THURSDAY, APRIL 27TH:—MORNING, 9 TO 12.

Examiner,.....VEN. ARCHDEACON LEACH, D.C.L.

1. Give the principal incidents noted in Paoli's account of the mode of life of the early Saxon Kings.

2. Give the names of those who, in Anglo-Saxon times, are to be ranked as Kings of all England.

3. What was the origin of the Peter's Pence?

4. Give an outline of the history of the Danish Rule in England.

5. What was the state of the Church at the close of the great conflict with the Danes, in Alfred's time; and what legislative measure did he employ for its benefit?

6. Give an account of the origin of the claims set up by the English to the Crown of France, and of the events consequent thereupon, till the *Treaty of Brittany*.

7. Who were the Kings of the House of Lancaster, of the House of York, of the House of Tudor, of the House of Stuart?

8. What were the Consistory Courts, their objects, and the nature of the proceedings in them?

9. Give an explanation of the law-term, *praemunire*, and a history of the enactments so called.

10. State the principal points in the petition of the Commons, in the Parliament of 1529.

11. Give a short sketch of the history of the Lady Jane Grey.

12. How did Cardinal Pole come to have the influence which he exerted in Queen Mary's reign?

13. What was the origin of the Oath of Allegiance?

14. Give a short account of the history of Sir Thomas More.

15. State the principal obligations of the Protestant Church to Cranmer.

LOGIC AND MENTAL AND MORAL PHILOSOPHY.

INTERMEDIATE EXAMINATION.

LOGIC.

TUESDAY, APRIL 11TH:—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL.D.

1. (*a*) Distinguish Categorematic and Syncategorematic words. (*b*) In the following proposition state what words are Categorematic; what, Syncategorematic:—"A thing of beauty is a joy for ever."

2. (*a*) What is a Predicable? (*b*) Distinguish the different Predicables, giving an example of each.

3. (*a*) Explain what is meant by Definition. (*b*) Illustrate by defining the word Proposition. (*c*) State the Rules of Definition.

4. (*a*) What is meant by the Distribution of a term? (*b*) In what propositions is the subject; in what, is the predicate distributed? (*c*) Explain the reason.

5 Explain the symbols A, E, I, O; and give the symbol for each of the following propositions:

(*a*) Many men are unwise;

(*b*) Not a drum was heard;

(*c*) Most men are illogical;

(*d*) Blessed are the pure in heart.

6. (*a*) What is meant by the Opposition of propositions? (*b*) Distinguish the different kinds of Opposites. (*c*) Give the several Opposites of the proposition:—"No men are sinless."

7. Distinguish the several terms and propositions in the following syllogism:—"The connection of soul and body is a fact; and therefore some fact is incomprehensible, because the connection of soul and body is incomprehensible."

8. If the conclusion of a syllogism be O, what must the premisses be?

9. Why cannot I E form the premisses of any syllogism?

10. (*a*) Name the Mood and the Figure of the syllogism given under Question 7. (*b*) Reduce it to the First Figure.

11. (*a*) To what Figures do Festino and Dimaris respectively belong? (*b*) Explain the meaning of their significant letters.

12. State the following Enthymemes in the form of complete syllogisms:
(*a*) The angles A B C and B A C are equal to the same angle D E F; and therefore they are equal to one another.
(*b*) To excite sympathy for the enemies of liberty is a political blunder; and the execution of Charles I. had that effect.

13. In a trial for robbery the prosecutor proved that the prisoner had in his possession a coin, a medal, and a token, similar to a coin, a medal, and a token, which belonged to the person robbed. The defence replied by proving that each of these articles was common, and inferring that they might have been innocently in the possession of the prisoner. What Fallacy is involved in this defence?

14. When any Authority is placed above Reason, and then Reason is adduced to establish that Authority, what Fallacy is committed?

15. Distinguish (*a*) the two main divisions of the Fallacies, (*b*) the two subdivisions of each.

THIRD YEAR.

MORAL PHILOSOPHY.

TUESDAY, APRIL 11TH:—AFTERNOON, 2 TO 5.

Examiner,.....J. CLARK MURRAY, LL. D.

1. (*a*) Explain the origin and the meaning of the terms Ethics and Morals. (*b*) Describe the general object of the science which these words are used to designate.

2. Distinguish the Empirical theory from the theory of Spencer regarding the origin of the emotions.

3. (*a*) Show how far the Motive Power of a Feeling is determined by its Intensity. (*b*) Describe the other qualities upon which the Motive Power of Feelings depends.

4. Explain why some feelings, like Grief, which are inherently painful, give a certain gratification by their indulgence.

5. (*a*) Define Resentment. (*b*) Distinguish its two forms. (*c*) Explain the origin of Envy and Jealousy.

6. (*a*) Distinguish Practical from Speculative Reason. (*b*) Show that Practical Reason, by its very nature, lays down a law. (*c*) Explain the form which that law assumes in a Rational Being endowed with sensibility.

7. State and criticize Stewart's classification of Duties.

8. Distinguish the spheres of Morality and Law.

9. Define (*a*) Right, (*b*) the Fundamental Right, (*c*) the general division of Rights.

10. Distinguish Benevolence, (*a*) as an Affection, (*b*) as a Duty, (*c*) and as a Virtue.

11. State the various theories, mentioned by Stewart, on the Origin of Evil.

12. State some of the considerations adduced by Stewart which may account for the origin of (*a*) Moral and (*b*) Physical Evils in harmony with the Benevolence of God.

13. State some of the evidences for a Future State, derived from the human constitution and the circumstances in which man is placed.

14. State the different opinions of the Ancients concerning the Sovereign Good.

B. A. ORDINARY EXAMINATION.

MURRAY'S OUTLINE OF HAMILTON'S PHILOSOPHY.

TUESDAY, APRIL 11TH:—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL. D.

1. Explain (*a*) the more general, (*b*) the more restricted, sense, in which the word Philosophy is used.

2. Explain Hamilton's classification of the Philosophical Sciences.

3. Distinguish the classes into which the Phenomena of Mind may be divided, illustrating the distinction by an example of each class.

4. What acts of discrimination are involved in all consciousness?

5. (*a*) Why must every system of philosophy assume the veracity of consciousness? (*b*) How far is the testimony of consciousness absolutely ndubitable? (*c*) State the rules for applying its testimony.

6. What, according to Hamilton, is (*a*) the sole immediate object of Perception, (*b*) the mode of perceiving our own bodies, (*c*) the mode of perceiving bodies external to our own?

7. Explain (*a*) the Duality of Consciousness involved in all Perception, (*b*) the various theories which arise from its acceptance or rejection.

8. Explain the mutual relations of the Conservative, Reproductive, and Representative Faculties.

9. (*a*) In what state does Hamilton suppose our knowledge to be when it is not actually before the consciousness? (*b*) What arguments does he adduce to prove such a state?

10. What is Reproduction called, (*a*) when voluntary, (*b*) when involuntary?

11. Explain what is commonly called Imagination or Productive Imagination.

12 (*a*) Describe the process of Generalisation. (*b*) State the different theories on the nature of General Terms.

13 (*a*) State the Law of the Conditioned. (*b*) Illustrate the Law in its application to Time.

14. Classify the different theories on the nature of the Causal Judgment.

15. Sketch Hamilton's own theory.

B. A. ORDINARY EXAMINATION.

STEWART'S OUTLINES OF MORAL PHILOSOPHY.

TUESDAY, APRIL 11TH :—AFTERNOON, 2 TO 5.

Examiner,.....J. CLARK MURRAY, LL.D.

1. (*a*) Define Active Power. (*b*) Classify the Active Powers.

2. (*a*) What is the only Malevolent Affection implanted by Nature? (*b*) Distinguish its two forms.

3. (*a*) Wherein does Self-love differ from implanted principles of action? (*b*) In what respects is the term objectionable?

4. Of what three facts are we conscious in contemplating a good or bad action?

5. Sketch the course of controversy in England on the origin of our moral ideas since the time of Hobbes.

6. Point out the sources of the emotions which give to Virtue its Beauty.

7. What principles cooperate with Virtue?

8. (*a*) State the two premisses of the Argument from Design for the existence of God. (*b*) Which of these was attacked in ancient times; which, in modern? (*c*) Explain the reason of this difference.

9. On what ground alone can we found a belief in the Moral Attributes of God?

10. State the various theories on the Origin of Evil.

11. State some of the considerations which may account for the Origin of Evil in harmony with the Benevolence of God.

12. State some of the evidences for a Future State, derived from the human constitution and the circumstances in which man is placed.

13. State (*a*) Hume's doctrine regarding the nature of Justice, (*b*) the main argument in its support, (*c*) Stewart's arguments in refutation.

14. State the different opinions of the Ancients concerning the Sovereign Good.

15. What are the chief occasions on which reason may be exercised in the practice of morality?

HONOUR EXAMINATIONS IN MENTAL AND MORAL PHILOSOPHY.

THIRD YEAR.

THOMSON'S OUTLINE OF THE LAWS OF THOUGHT.

MONDAY, APRIL 10TH:—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL.D.

1. (*a*) Distinguish Intuitions and Conceptions. (*b*) Describe the several steps in the formation of the latter.

2. (*a*) Distinguish the Extension and Intension of a Conception. (*b*) State and demonstrate the law of their relation. (*c*) Explain the correspondence of Extension and Intension to Division and Definition.

3. Define Privative and Relative Conceptions, giving an example of each.

4. Define Univocal, Equivocal, and Analogous Nouns, giving an example of each.

5. Distinguish Substitutive and Attributive Judgments, giving an example of each.

6. (*a*) What judgments does Thomson add to the common classification? (*b*) What further judgments are added by Sir W. Hamilton? (*c*) Discuss the propriety of Hamilton's addition.

7. Interpret the proposition, "All men are mortal," according to Extension, Intension, and Denomination.

8. Describe the principal forms of Immediate Inference.

9. Explain the difference between Thomson's doctrine of Opposition and that of the common Logic.

10. The common Logic maintains that the middle term must be distributed in one premiss at least. What alternatives does Thomson admit?

11. Discuss the question, whether the distinction of Figures is, in the case of all or of any, an arbitrary artifice.

12. Give the Special Canon of each Figure.

13. Describe the Unfigured Syllogism, illustrating by an example

14. Distinguish the two kinds of Sorites.

ANCIENT PHILOSOPHY.

MONDAY, APRIL 24TH:—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL.D.

1. (*a*) When, (*b*) where, (*c*) with whom, did the earliest School of Philosophy originate in Greece? (*d*) State the general doctrine of the School, as well as the special form of the doctrine held by its most celebrated representatives. (*e*) Name its less famous representatives.

2. (*a*) Where, (*b*) when, did the Pythagorean Society flourish? (*c*) Describe its character and aims. (*d*) What led to its being broken up?

3. Sketch the philosophy of the Pythagoreans, mentioning both their general doctrine and its main applications.

4. Describe the character of the Eleatic School, as represented (*a*) by its founder, (*b*) by its greatest dialectician, explaining the general drift of the famous arguments of the latter.

5. Distinguish the doctrines of Anaxagoras and Democritus with regard to the ultimate elements of things.

6. Mention the principal facts in the life of Socrates, describing especially the mode of his influence upon the thought of his time.

7. Point out, in the teaching of Socrates, the sources of the so-called *incomplete* Socratic Schools.

8. (*a*) State what you know of the founder of the Cyrenaic School. (*b*) Explain why their system should be called Hedonism rather than Eudemonism. (*c*) Mention some of its developments among its later adherents.

9. Sketch Plato's doctrine of Ideas, (*a*) in itself, (*b*) in its influence on his Physics and Ethics.

10. (*a*) Relate the story of Strabo about the fate of the Aristotelian library. (*b*) Notice the discrepancy between the works of Aristotle described by the ancients and those known to us. (*c*) Suggest any reconciliation of the discrepancy.

11. (*a*) What science was created by Aristotle? (*b*) Sketch his First Philosophy, noticing specially his doctrines of the Categories and Causes.

12 (*a*) Relate the origin of the Stoical School. (*b*) Notice the prominent points in their Logic. (*c*) Explain their peculiar doctrine on the essential nature of all things.

B. A. EXAMINATION FOR HONOURS IN MENTAL AND MORAL PHILOSOPHY.

WEDNESDAY, APRIL 5TH:—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL.D.

I. PLATO'S THEÆTETUS.

1. (*a*) State the alleged occasion of the dialogue. (*b*) Discuss how far the allegation is credible.

2. Explain the question discussed in the dialogue, distinguishing it from the question with which Theætetus confounds it at first.

3. (*a*) State the most prominent doctrine criticised in the dialogue, (*b*) the contemporary doctrines with which it is identified. (*c*) Discuss how far this identification is justifiable.

4. State and criticise some of the main Platonic objections to the celebrated doctrine of Protagoras.

5. (*a*) What is the general result of the dialogue? (*b*) How far does this result illustrate the apparent design of Plato in writing some of his dialogues? (*c*) What was the later tendency of the Platonic school, which had its source in this class of dialogues?

II. MEDIÆVAL PHILOSOPHY.

1. (*a*) What writer forms a transition from Ancient to Mediæval philosophy? (*b*) Under what emperor was he consul? (*c*) Describe briefly his chief work. (*d*) Discuss whether he was a Christian or a Pagan.

2. (*a*) Who was *the* metaphysician of the ninth century? (*b*) To what country did he belong? (*c*) State Guizot's theory of his position. (*d*) Give a brief sketch of his great work.

3. (*a*) What Norman monastery became a celebrated seat of learning in the eleventh century? (*b*) Name two great thinkers connected with this monastery. (*c*) What position did they afterwards hold in England?

4. Sketch the life of Abelard.

5. (*a*) What other great thinker belonged to the same century with Abelard? (*b*) Why was he called Master of Sentences (Magister Sententiarum)?

6. (*a*) Name two great Dominicans of the thirteenth century. (*b*) Which of them was called the Angelical Doctor? (*c*) Name his great work. (*d*) Describe its two parts, as well as the subordinate divisions of the second.

7. (*a*) What great Englishman forms a transition to modern philosophy? (*b*) In what respect does he hold this position? (*c*) Sketch his life.

MILL'S LOGIC.

MONDAY, APRIL 10TH:—MORNING, 9 TO 12.

Examiner,..... ....J. CLARK MURRAY, LL.D.

1. State Mill's definition of Logic.

2. (*a*) What does a Name express, according to Mill? (*b*) What common theory on this subject does he reject?

3. Give Mill's classification of Nameable Things.

4. State (*a*) the different views of the import of propositions rejected by Mill, (*b*) his own view.

5. (*a*) State Mill's definition of Inference. (*b*) What Inferences, so called, are excluded from this definition?

6. Explain and discuss Mill's theory of Inference, indicating the function which he ascribes to the Syllogism.

7. Give Mill's explanation of the Necessity attaching to Demonstrative Reasonings.

8. Explain Mill's definition of Cause.

9. (*a*) State the Methods of Experimental Inquiry. (*b*) Give an example of one.

10. (*a*) State the different modes of explaining the Laws of Nature. (*b*) To what does all such explanation amount? (*c*) What is the limit to such explanation?

11. (*a*) Why is Descartes' hypothesis of Vortices illegitimate? (*b*) What hypothesis regarding Light does Mill regard as illegitimate for the same reason?

12. (*a*) Define an Empirical Law. (*b*) Show that Uniformities of Co-existence possess only the evidence of Empirical Laws.

13. State the requisites of Philosophical Language.

14. Explain the doctrine of Philosophical Necessity as understood by Mill, and as laid by him at the basis of a Science of Human Nature.

15. Show that Sociology must be deductive, explaining the difference between the Direct and the Inverse Methods of Deduction.

MODERN PHILOSOPHY.

WEDNESDAY, APRIL 12TH:—AFTERNOON, 2 TO 5.

Examiner,.....J. CLARK MURRAY, LL.D.

1. Mention the chief thinkers who led the revolt against Scholastic Aristotelianism in the sixteenth century.

2. Sketch the Periods into which Modern Philosophy was divided in the lectures, and the divisions of each period.

3. (*a*) Describe the great philosophical work which Lord Bacon had planned. (*b*) What place did the Novum Organon occupy in that work? (*c*) Did Bacon found a System or a Method? (*d*) Why should he be regarded as the Father of Modern Empiricism?

4. Sketch the philosophy of Hobbes, noticing especially the fundamental doctrines of his Ethics and Politics.

5. What contemporary of Hobbes is distinguished for his revival of Epicureanism in France?

6. (*a*) Explain the tendency of Empiricism towards Scepticism. (*b*) Mention some of the popular writers who represented that tendency in the seventeenth century.

7. Sketch the philosophy of Locke, both in its Negative or Polemical and in its Positive or Dogmatic Aspect.

8. (*a*) Who was the Founder of Modern Idealism? (*b*) State the prominent points in his system.

9. (*a*) Notice the Dualism inherent in this system. (*b*) Explain the attempts to reconcile the Dualism by the three most celebrated followers of the system.

10. (*a*) Mention the English writers of an Idealistic tendency previous to Berkeley. (*b*) Explain the general purport of Berkeley's Idealism.

11. Notice the evidences of Leibnitz's catholic intellectual sympathies, and describe his doctrines on (*a*) Monads, (*b*) Preëstablished Harmony, (*c*) Innate Ideas, (*d*) Optimism.

12 Sketch Kant's Critique of the Faculty of Judgment, explaining its relation to his other Critiques.

13. Explain Hartley's position in the development of Empiricism.

14. Notice the great English representatives of Empiricism subsequent to Hartley, explaining specially the new direction given to the doctrine by H. Spencer.

KANT'S CRITIQUE OF THE PURE REASON.

FRIDAY, APRIL 21ST:—MORNING, 9 TO 12.

Examiner,.....J. CLARK MURRAY, LL.D.

1. Define the expressions, A priori, A posteriori, Pure, Empirical, Transcendental, and Transcendent, as applied to conceptions by Kant.

2. (*a*) What are Synthetic Judgments *a priori?* (*b*) Show that in all theoretical sciences there are such Judgments. (*c*) What connection have such Judgments with the Critique?

3. (*a*) Distinguish the Metaphysical and the Transcendental expositions of a conception. (*b*) Give in outline both expositions of the conception of space.

4. In what sense does Kant ascribe Reality; in what sense, Ideality to Space and Time?

5. (*a*) Give Kant's Table of the Categories. (*b*) Explain how he arrives at these.

6. (*a*) Explain what Kant means by Transcendental Deduction. (*b*) Sketch, as you understand it, Kant's Deduction of the Categories.

7. (*a*) Distinguish Extensive and Intensive Quantities. (*b*) When must we predicate *a priori* the former quantity; when, the latter? (*c*) Explain the reason in both cases.

8. (*a*) Define Idea, as used by Kant and by Plato respectively. (*b*) How are the Ideas originated, according to Kant?

9. (*a*) Sketch the system of Cosmological Ideas, exhibiting its relation to the Categories. (*b*) State the several Theses and Antitheses founded on the Cosmological Ideas.

10. Define (*a*) Ideal in general, (*b*) the Transcendental Ideal.

11. State and criticise the Ontological Argument for the existence of a Supreme Being.

12. Explain the use which Kant ascribes to the Ideas.

KANT'S METAPHYSIC OF ETHICS.

MONDAY, APRIL 24TH:—AFTERNOON, 2 TO 5.

Examiner,.....J. CLARK MURRAY, LL.D.

1. (*a*) What is a Practical Principle? (*b*) Distinguish Subjective and Objective Practical Principles.

2. Describe the form which a Practical Principle assumes in the case of a being who is not determined solely by Reason.

3. (*a*) What is a Material Practical Principle? (*b*) Show that all such Principles are discoverable only *a posteriori*, and (*c*) ultimately rest on Self-love.

4. Give a view of the different Ethical Systems founded on Material Principles.

5. (*a*) What is a Formal Practical Principle? (*b*) State such a Principle.

6. Explain the nature of a Will which is determined by such a Principle.

7. Describe the Emotion which the Moral Law awakens, distinguishing it from all Pathological Feelings.

8. Distinguish the orders in which the Critiques of the Theoretical and of the Practical Reason respectively proceed.

9. Explain the harmony of Moral Freedom with the Necessity of Physical Causation.

MODERN LANGUAGES.

FIRST YEAR.

FRENCH.

THURSDAY, APRIL 13TH:—MORNING, 9 TO 12.

Examiner, ...P. J. DAREY, M.A., B.C.L.

1. Translate into English:

CHRYSALE A BÉLISE. C'est à vous que je parle, ma sœur.
Le moindre solécisme en parlant vous irrite;
Mais vous en faites, vous d'étranges en conduite.
Vos livres éternels ne me contentent pas;
Et, hors un gros Plutarque à mettre mes rabats,
Vous devriez brûler tout ce meuble inutile,
Et laisser la science aux docteurs de la ville;
M'ôter, pour faire bien, du grenier de céans
Cette longue lunette à faire peur aux gens,
Et cent brimborions dont l'aspect importune;
Ne point aller chercher ce qu'on fait dans la lune,
Et vous mêler un peu de ce qu'on fait chez vous,
Où nous voyons tout aller sens dessus dessous.

MOLIÈRE, *les Femmes savantes.*

2. Why did Chrysale speak to his sister? What was his character? Who were the *Femmes savantes?* What foible did Molière wish to turn into ridicule in that comedy? Which is the best drawn character of the piece? Which the next best?

3. Parse all the words of the two first lines.

4. Write in full the primitive tenses of all the verbs in the six first lines. Point out the irregular ones and show their irregularity. Write also in full all the simple tenses of *venir*.

5. What remark do you make on verbs whose present participles end in *iant* and *yant?* And on those whose infinitives ends in *éler* and in *eler?* Give examples.

6. Point out the difference in meaning between the expressions: *il es allé en Europe* and *il a été en Europe; mourir, il est mort* and *il se meurt; des drapeaux bénis* and *des drapeaux bénits; rire* and *se rire.*

7. Where are the adverbs generally placed in French? Give examples.

8. State the three rules to form adverbs from adjectives in French. Give examples and exceptions.

9. Translate into French the adverbs: *wrongfully, henceforth, hastily*

elsewhere; the prepositions: *besides, whilst, towards;* and the conjunctions: *moreover, whether, nevertheless.*

10. When is the *indefinite article* omitted in French, though used in English? Give three examples. State two cases when the omission of the *indefinite article* does not take place conformably to the rule required above? Give two examples. When do proper names take the definite article? Give an example.

11. Translate into French:

Towers, spires, trees, flocks, huts, houses, palaces, everything wa swallowed up by the waves of the sea. Let us say no ill of Boileau, said Voltaire, that brings bad luck. I do not know who is in the wrong. The pound sterling is worth about twenty-five francs. Louis the Fifteenth was the great grandson of Louis the Fourteenth. Dante, Tasso and Ariosto hold the first rank among the Italian poets. Homer has described men such as they were with their good and bad qualities. Innocence of manners, sincerity, and abhorrence of vice inhabit this happy region. The principal metals are: gold, silver, copper, tin, iron, and lead. Eating, drinking and sleeping are necessary to man. In the time of Philip the Fair there were only the dukes, the counts, and the barons, whose ladies had the right to treat themselves with four gowns a year. The ancients believed that the swan sang melodiously, when it was about to die. I shall not conceal from you my way of thinking.

SECOND YEAR.

FRENCH.

THURSDAY, APRIL 13TH:—MORNING, 9 TO 12.

Examiner, ...P. J. DAREY, M.A., B.C.L.

1. Translate into French:—

Montreal, April 13th, 1876.

Sir,—I have the honour to acknowledge the receipt of your letter of the 8th inst. Many thanks for your good wishes. Business seems a little more active. I have received several bills of lading for goods to arrive shortly. There was the right amount of postage stamps on the parcel you sent on the 3rd ultimo. Believe me yours truly, A. B.

2. When did Amyot, Charles d'Orléans, Vaugelas, Malherbe, Froissart, Montaigne, Théodore de Bèze, Ronsard, Christine de Pisan and Rotrou live? By what writings are they known, and what is the special merit of each? Give a short sketch of their lives.

3. Where was Racine born? Where was he educated? Who were his masters? How did he make himself first known as a poet of great merit? How

many tragedies did he write? Give the source whence he took the subjects of each of his tragedies? How many and which have the name of women?

4. What rank does the tragedy of Andromaque occupy both in the order of time and of merit? Which character do you consider the best? Which the next best?

5. Translate into English:—

> Cléone. Non, je ne puis assez admirer (1) ce silence;
> Vous vous taisez madame, et ce cruel mépris, (2)
> N'a pas du moindre trouble agité vos esprits!
> Vous soutenez en paix une si rude attaque,
> Vous qu'on voyait frémir au seul (3) nom d'Andromaque
> Vous qui sans désespoir ne pouviez endurer
> Que Pyrrhus d'un regard la voulût (4) honorer!
> Il l'épouse; il lui donne avec son diadème,
> La foi que vous venez de recevoir vous-même:
> Et votre bouche encor, muette à tant d'ennui,
> N'a pas daigné s'ouvrir pour se plaindre (5) de lui!
> Ah que je crains, madame un calme si funeste!
> Et qu'il vaudrait bien mieux.—Herm. Fais-tu venir Oreste?
>
> Racine, *Andromaque.*

6. (1) What is the usual meaning of *admirer?* What does it mean here? (2) What *mépris* does she mean? (3) Give the full force of *seul.* What are the three words by which it is rendered in English? (4) Why is *voulût* in this mood and tense? (5) What is the meaning of *plaindre* when used actively?

7. Translate into French:—

The evening was now far past, and they rose to return home. As they walked along the bank of the Nile, delighted with the beams of the moon quivering on the water, they saw at a small distance an old man, whom the prince had often heard in the assembly of the sages. "Yonder," said he, "is one whose years have calmed the passions, but not clouded his reason: let us close the disquisitions of the night, by inquiring what are his sentiments of his own state, that we may know whether youth alone is to struggle with vexation, and whether any better hope remains for the latter part of life." Here the sage approached and saluted them. They invited him to join their walk, and prattle awhile, as acquaintance that had unexpectedly met one another. The old man was cheerful and talkative, and the way seemed short in his company. He was pleased to find himself not disregarded, accompanied then to their house, and, at the prince's request, entered with them. They placed him in the seat of honour and set wine and conserves before him.

Johnson, *Rasselas.*

THIRD YEAR.

FRENCH.

THURSDAY, APRIL 13TH:—MORNING 9 TO 12.

Examiner,.....P. J. DAREY, M.A., B.C.L.

1 Traduisez en anglais :—

D. DIÈGUE. Qu'on est digne d'envie
Lorsqu'en perdant la force on perd aussi la vie !
Et qu'un long âge apprête aux hommes généreux
Au bout de leur carrière, un destin malheureux !
Moi, dont les longs travaux ont acquis tant de gloire,
Moi, que jadis partout a suivi la victoire,
Je me vois aujourd'hui, pour avoir trop vécu,
Recevoir un affront et demeurer vaincu.
Ce que n'a pu jamais combat, siège, embuscade,
Ce que n'a pu jamais Aragon ni Grenade,
Ni tous vos ennemis, ni tous mes envieux,
Le comte en votre cour l'a fait presque à vos yeux,
Jaloux de votre choix, et fier de l'avantage
Que lui donnait sur moi l'impuissance de l'âge.
Sire, ainsi ces cheveux blancs blanchis sous le harnois,
Ce sang pour vous servir prodigué tant de fois,
Ce bras, jadis l'effroi d'une armée ennemie,
Descendaient au tombeau tout chargés d'infamie,
Si je n'eusse produit un fils digne de moi,
Digne de son pays, et digne de son roi.

CORNEILLE, LE CID.

2. Faites un résumé du CID.

3. D'où le sujet de cette pièce est-il tiré? Que reproche-t-on à cette tragédie sous le rapport des mœurs?

4. Quel est le poète satirique le plus fameux du 18me siècle? Quels sont ses écrits les plus remarquables. Nommez six philosophes et moralistes du 18me siècle, et faites quelques remarques sur leurs principaux ouvrages. Quels sont les cinq orateurs les plus remarquables de ce siècle? Donnez quelques détails biographiques de ces orateurs.

5. Traduisez en français :—

HINTS TO TRANSLATORS.

My readers must not suppose that I am going to give them here a particular secret for a perfect translation. The method of translating perfectly is too easy of explanation to require many words: it consists simply in being thoroughly acquainted with the language from which and that into which we translate. This every one knows well enough without being told. I intend merely to give directions to the student, by the means of which he will be enabled to make the most of his acquired knowledge

—whatever degree it may have reached,—so as to produce a better translation than he could have done with the same amount of knowledge but if left to his own unassisted efforts to turn it to account. There are, in every translation, as in every composition in any simple language, two things to be considered, namely, *words*, separately, which represent simple ideas, and *phrases*, or the association of words, or the association of the words into a more or less complex form of thought.

First, as to "words." So far as the generality of words are concerned, your safest guide will be a dictionary in which the French words corresponding to the English are given accurately. But what I should wish particularly to direct your attention to, is, the danger to be misled,—unless you consult your dictionary every time you are not positively certain of your own knowledge—by the great likeness of many French and English words which, though having a similar origin, differ rather widely, in their meaning..... G**

JUNIOR CLASS.

GERMAN.

FRIDAY, APRIL 21ST:—AFTERNOON, 2 TO 5.

Examiner,.....C. F. A. MARKGRAF, M.A.

1. Translate into English:—

(A) „„Willſt, feiner Knabe, du mit mir gehn,
Meine Töchter ſollen dich warten ſchön;
Meine Töchter führen den nächtlichen Reihn,
Und wiegen und tanzen und ſingen dich ein." "

„Mein Vater, mein Vater, und ſiehſt du nicht dort
Erlkönigs Töchter am düſteren Ort?"—
„Mein Sohn, mein Sohn, ich ſeh' es genau;
Es ſcheinen die alten Weiden ſo grau."—

„„Ich liebe dich, mich reizt deine ſchöne Geſtalt,
Und biſt du nicht willig, ſo brauch' ich Gewalt." "—
„Mein Vater, mein Vater, jetzt faßt er mich an!
Erlkönig hat mir ein Leids gethan!"—

Dem Vater grauſet's, er reitet geſchwind,
Er hält im Arme das ächzende Kind,
Erreicht den Hof mit Müh' und Noth;
In ſeinen Armen das Kind war todt.

Fragment from Gœthe's „Erlkönig

(B) Der andere, ein Kaufmann, ſagte: „Nie habe ich mich mit meines Nächſten Schaden bereichert; nie iſt ſein Fluch mit mir zu Bette gegangen und von meinem Vermögen gab ich gern den Armen, darum hat mir Gott die Jahre geſchenkt."

Der dritte, ein Richter des Volkes, sprach: „Nie nahm ich Geschenke; nie bestand ich starr auf meinem Sinne; im Schwersten suchte ich mich jederzeit zuerst zu überwinden, darum hat mich Gott mit meinem Alter gesegnet." Da traten ihre Söhne und Enkel zu ihnen heran, küßten ihre Hände und kränzten sie mit Blumen. Und die Väter segneten sie und sprachen: „Wie eure Jugend, sei auch euer Alter! Eure Kinder seien euch, was ihr uns seid: auf unserm greisen Haar eine blühende Rosenkrone."

Das Alter ist eine schöne Krone; man findet sie aber nur auf dem Wege der Mäßigkeit, der Gerechtigkeit und Weisheit.

Fragment from „Die Krone des Alters," by Herder.

2. (*a*) State rules for the determination of the gender of substantives. (*b*) Show the characteristics of the *strong* and *weak* declensions.

3. Write down the Gen. Sing., and the Nom. Plu. of the following nouns, giving the gender and meaning of each:—Wald, Macht, Fest, Candidat, Schiffer, Linde, Ungar, Gefahr, Herr, Haupt, Sturm, Mission, Herz, Pflicht, Reichthum, Schwede, Hoffnung, Gespräch.

4. (*a*) Give the meaning and composition of Taschentücher, Ackerbauer, Jahreszeiten, Bücherschränke, Blumensträuße, Nebenmenschen, Schlüsselkörbchen, Arbeitstische. (*b*) Show the difference between der See and die See; der Thor and das Thor; Fürst and Prinz; Platz (place) and Ort (place); Zahl and Anzahl; Wand (wall) and Mauer (wall); Ordnung (order) and Befehl (order).

5. (*a*) Decline in the Singular:—A fallen hero; that golden crown.
(*b*) Decline in the Plural:—Great men; many small towns.

6. (*a*) How are *he, she, it* (or *that*), *they* (or *those*) rendered in German, when followed by a relative pronoun? (*b*) Explain the pronominal forms dessen, deren, derer, denen.

7. Explain the use of sich and selbst, adding short examples.

8. Write down the prefixes which form *derived* verbs, and some which form *compound separable* verbs.

9. (*a*) Ziehen, stehen, brechen, tragen.—Write in full the Imperfect Indicative of these verbs, and give their Past Participles. (*b*) Give the 3rd Sing., and the 2nd Plural, in all the tenses of the Indicative, of werden, geben, lassen.

10. Parse, and give the Present Infinitives of:—fängst, hilft, batest, wartetet, mag, seid geritten, gingen, kannte, durften, stand auf, war geschehen, abgenommen, liest, schlugen.

11. Give general rules for the arrangement of words (*a*) in principal sentences, (*b*) in dependent clauses.

12. Translate into German:—

We *took* (made) a walk this morning to the beautiful hill which lies near (unfern) the dwelling of our friend. I will send you the books which my uncle has given me for you. A round or *an* oval table is much prettier than a square *one*. Pink, lilac and sky-blue are the most delicate (zart) colours. Good children are the joy, pride and hope of affectionate (zärtlich) parents. Which of these two pupils (Schüler, m.) is the most diligent, and speaks and writes best? They (man) rang (with) all *the* bells, when the king arrived; and the people placed themselves at (an, Acc.) their doors and windows in order to greet him. The messenger came by land and on horseback, but he will return by water. Schiller (has) died in the year 1805. The astrologers pretended (wollen, Imperf.) to read the destinies of men (Mensch, m.) in the stars.

JUNIOR CLASS.

HEBREW.

THURSDAY, APRIL 13TH:—MORNING, 9 TO 12.

Examiner, ...REV. A. DE SOLA, LL.D.

1. Show how the construct forms of masculine nouns in the singular are formed, when the nominative contains mutable or immutable vowels. Show the changes taking place in a disyllabic noun having in both syllables a mutable vowel, and give rules for distinguishing an immutable vowel.

2. Give the principal parts of the verb למד in the *kal* form.

3. Write out the personal pronouns in both numbers and genders, and add the fragmentary forms, also the relative and interrogative.

4. Add the prepositions מ, ל, כ, ב, with the definite article in contracted forms, to the noun שיר.

5. Add the pronominal fragments, in both numbers and genders, to the noun דבר,—sing. and pl. numbers.

6. Give the rules for adjectives in connection with nouns, and add the pronominal suffixes, sing. and pl. to an adjective and noun coming together in the plural form, *e. g.*, סוסים טובים.

7. Show how the many and various forms of *Segholates* may be comprehended under one general definition.

8. Give the terminations of nouns fem., sing. and pl., and of the masc. pl., all in the nominative case; also of nouns fem. in the construct sing. and pl.,and of the dual and masc. pl. in the construct forms.

9. To the feminine noun תורה add the pronominal suffixes, sing. and pl.

10. Translate into Hebrew:—

The good man sent the horse to the field. The pretty little dog died last week, we were all very sorry for this. The large horses in the small field. With our young men, with our old men, with our sons and with our daughters we will go. The daughters are my daughters, and the sons are my sons, and the sheep are my sheep.

11. Translate into English:—

לא תעשה כל מלאכה אתה ובנך ובתך עבדך ואמתך ובהמתך וגרך אשר בשעריך: לי-
מארצך וממלדתך ומבית אביך אל הארץ אשר אראך אל ארצי ואל מולדתי תלך ולקחת
אשה לבני ממשפחתי ומבית אבי:

SENIOR CLASS.

HEBREW.

THURSDAY, APRIL 13TH:—MORNING, 9 to 12.

Examiner,.....REV. A. DE SOLA, LL.D.

1. Write out the verb שמר in the *Niphal* and *Piel* forms, preterite and future tenses.

2. Translate literary Genises I. verses 11 to 21, both inclusive.

3. Analyze thoroughly verses 25, 26 and 27 in the same chapter, point out the difference between היה and בהמה, ירק and עשב, שרץ and רמש, מאור and אור.

4. Write out the irregular verb עמד in *kal* form.

5. Add the pronominal suffixes to the irregular noun בית in both numbers and genders.

6. Translate first nine verses of 2nd Psalm, and last five verses of Psalms 3 and 4.

7. Analyze verses 3, 4, 5, of Ps. 2; verses 6, 7, 8, of Ps. 3; verses 7, 8, 9, of Ps. 4; verses 10, 11, 12, of Ps. 5.

8. Give the Imperative moods, and Participles Active of the verbs שלח and ברך, שחט, עמד, למד.

9. Show by examples what changes nouns, formed of two mutable vowels in the nominative undergo to form their construct state.

10. Describe pure *segholates*, and show how their various and numerous forms may be included in one general definition, notwithstanding the changes of vowels.

11. Translate into Hebrew:

Man was made in the image and likeness of God, who breathed into his nostrils an immortal soul; man, therefore, became the superior of every living creature; the beast of the field, the fowl of the air, the fish of the sea, became subject to his dominion; fruit tree, herb, and all that grew on the face of the earth were given to supply his wants.

12. Translate into English:

לא אל חפץ רשע ה' לא יתיצבו הוללים לנגד עיניו איש דמם תעיב ה' יושב בשמים ישחק וילעג למו לא כן הצדיק הוא יהיה כעץ שתול על פלגי מים אשר פריו יתן בעתו ועלהו לא יבול וכל אשר יעשה יצליח:

STEWART PRIZE IN HEBREW.

TRANSLATION.

FRIDAY, APRIL 14TH:—MORNING, 9 TO 12.

Examiner, ... REV. A. DE SOLA, LL.D.

1. Translate literally Psalms II, III and IV.
2. Analyze thoroughly as follows:—

   In Ps. II., verse 5, אליהמו and יבהלמו; in verse 7 explain especially אספרה אל חק

   In Ps. III., show the difference between מזמור and שיר; in verse 3, explain ישועתה, and analyse fully verses 4, 5, 6 and 7.

   In Ps. IV., vs. 2, analyze בקראי and הרחבת; analyze also verses 6, 8 and 9.

3. Translate Genesis, chapter III, first half of ch. VII, second half of chapter VIII.

4. Analyze in chap. III, first three verses, noticing especially ערום in chap. VI, verses 9, 11, 12; in chap. VII, verses 17, 18, 19; in chap. VIII, verses 1, 2, 3.

5. Translate Habakuk, from chapter II, vs. 18, to the end of the Book.

6. Analyze, with critical remarks in chap. II, verses 5, 6, 7, 8; and in chap. III, from verse 16 to end of chapter.

7. Translate and point:—

על משמרתי אעמדה ואתיצבה על מצור ואצפה לראות מה ידבר בי ימה אשיב על תוכחתי ויענני יי ויאמר כתוב חזון ובאר על לחמן ירוץ קורא בו כי עוד חזון למועד ויפח לקץ ולא יכזב אם יתמהמה חכה לו כי בא יבא לא יאחר הנה עפלה לא ישרה נפשו בו וצדיק באמונתו יחיה:

8. Translate into Hebrew:—

His splendor was like a bright luminary, casting its rays around, and there was the residence of his omnipotence. Pestilence preceded him; consuming lightning went in his train. He stood—the earth trembled: he beheld—and nations were dispersed; the eternal mountains were broken asunder, the perpetual hills did vacillate, when the Everlasting went forth.

GRAMMAR.

THURSDAY, APRIL 13TH:—MORNING, 9 TO 12.

Examiner,.....REV. A. DE SOLA, LL.D.

1. Conjugate the verb סבב in the *Kal*, *Niphal*, *Hiphil*, *Hophal*, *Poel* and *Poal*.

2. Conjugate the verb יצב in the *Kal*, *Niphal* and *Hiphil* forms; and the verb קום in *Kal*, *Niphal*, *Pilel* and *Pulal* forms.

3. Give an exposition of the Hebrew accents; explain their uses as signs of the tone, and as signs of interpunction. Give a list of the chief distinctives and of the chief conjunctives. Explain מלעיל and מלרע.

4. Describe *Makkaph*, and show how it affects the accents. Describe *Metheg*, and show its influence on syllabication, and give the rules for *Sheva*, *Kamets*, long and short, *Mappik*, *Gangya*, *Raphe*, *Dagesh*, *Kal* and *Hazak*. (Lene and forte.)

5. Conjugate the verbs מצא and גלה in all forms.

6. What have you to say of changes of Consonants and Doubling of Consonants; Aspiration and its removal; peculiarities of the Gutturals; unchangeable vowels, and of the rise of new vowels and syllables.

7. Write the noun בית in both singular and plural numbers, with pronominal fragments (sing. and pl.) attached.

8. Include in three chief classes, all the masculine Nouns enumerated by Gesenius in his paradigms. Describe *Segholates*, and show how all may be included in one general description, and state the general principles governing the changes of masculine Nouns to form their construct cases in singular.

9. Write out the Pronouns in their absolute forms, also in their fragmentary forms when added objectively to a Verb, and when joined to the prepositions אֵת, מִן, אֶל and כְּ.

10. Give the rules for the definite article and ה interrogative; show the changes of punctuation caused in the former by the Gutturals, and write the contracted form of the article when combined with the prepositions בְּ כְּ לְ preceding a noun.

11. Give the rules for Adjectives, and show how the degrees for comparison are expressed.

12. What have you to say of the relation of the subject and predicate in respect to gender and number, the manner of expressing the Copula, and of the construction of passive Verbs.

13. Explain the *constructio prægnans*, construction of Verbs with prepositions, and with the Accusative.

CHEMISTRY AND NATURAL SCIENCES.

FIRST YEAR.

ELEMENTARY CHEMISTRY.

WEDNESDAY, APRIL 19TH:—AFTERNOON, 2 TO 5.

Examiner,.....B. J. HARRINGTON, B.A., Ph.D.

1. Describe the different allotropic forms of Sulphur.

2. How much Sodic Chloride and Hydric Sulphate would be required to make a thousand kilogrammes of aqueous Hydrochloric Acid (42 per cent. HCL by weight)?

3. What is the best test for the detection of Hydric Cyanide, and what the best antidote in cases of Arsenic poisoning?

4. How is Chlorine prepared, and what are its properties?

5. Describe the extraction of Copper from its ores as carried out at Swansea.

6. Give full details of the manufacture of Sodic Carbonate.

7. What is the best way to prepare pure Silver?

8. Describe the manufacture of Phosphorus, illustrating the chemical changes which take place by means of equations.

9. Give the chemical composition of the following substances:—Brunswick Green, Cadmium Yellow, Lunar Caustic, Glauber's Salt, and Plaster of Paris.

10. Explain the changes indicated by the following equations:—

$$3\,K\,H\,O + P_4 + 3\,H_2\,O = 3\,K\,P\,H_2\,O_2 + H_3\,P.$$

$$Hg\,S\,O_4 + 2\,Na\,Cl = Na_2\,SO_4 + Hg\,Cl_2.$$

INTERMEDIATE EXAMINATION.

BOTANY.

WEDNESDAY, APRIL 19TH:—MORNING, 9 TO 1.

Examiner,.....J. W. DAWSON, LL.D., F.R.S.

1. Explain the sources of the Carbon and, Nitrogen of the plant, and the mode of their assimilation.

2. Explain Irregularity and Adnation of the parts of the flower, with examples.

3. Explain Fertilization in an ordinary Phænogam, describing the parts concerned.

4. Describe the reproductive organs of Mosses and Equiseta.

5. Explain the terms Diœcious, Labiate, Tetradynamous, as applied to parts of the flower, and the modifications of parts by which these arrangements are produced.

6. Describe the Pericarp, stating its normal structure, and naming some of its modifications.

7. Explain the natural system in Botany, and state the gradation of groups, from the species upward, with examples.

8. State fully the distinction between the flowers and fruits in Angiosperms and Gymnosperms.

9. State the characters of any Canadian Exogenous Order, with examples.

10. Give the distinctive characters of the classes of *Endogens* and *Anophytes*, and their positions in a tabular view of the Natural System.

11. In what Canadian Orders do we find the Papilionaceous Corolla, the Samara, the Silique? Describe either of these structures?

12. Refer the specimens exhibited to their series and class, and describe their forms and structures.

THIRD YEAR.

ZOOLOGY.

WEDNESDAY, APRIL 19TH:—AFTERNOON 2 TO 5.

Examiner,.....J. W. DAWSON, LL.D., F.R.S.

1. Name the classes of the *Radiata*, and characterise two of them, with examples.

2. Describe the highest class of the *Mollusca*, and give an example of each of its orders, with a statement of the points in which these differ.

3. Give a general outline of the classification of *Vertebrata*, with the characters of the classes.

4. Describe the locomotive and masticatory organs of the *Pulmonata* and *Myriapoda*.

5. State the characters of the *Brachiopoda*, with examples of the principal Families.

6. Describe the metamorphosis of one of the *Entozoa*.

7. State the distinctions between *Insecta*, *Arachnida*, *Crustacea*.

8. State the characters of the *Lamellibranchiata*, and describe the structures of a common species.

9. What are the distinctive characters of the Nervous System in Starfishes, Worms, and Gasteropods.

10. Characterise and refer to their place in the system the following groups:—*Rugosa*, *Tubicola*, *Ganoidea*, *Belemnitidae*, *Trilobita*, *Dinosauria*.

11. Describe the lancets of the Mosquito, the sting of the Scorpion or the jaws of a Decapod Crustacean.

12. Describe and refer to its Province and class, each of the specimens exhibited.

B. A. ORDINARY EXAMINATION.

GEOLOGY.

WEDNESDAY, APRIL 19TH:—MORNING, 9 TO 1.

Examiner,.....J. W. DAWSON, LL.D., F.R.S.

1. Explain the consolidation of sediments, and the modes of mineralisation of organic remains.

2. Describe the various effects of denudation, as acting on horizontal, inclined, and contorted beds.

3. Describe the Post-pliocene deposits of Canada, with some of their characteristic fossils.

4. State the causes to which the transport of boulders is attributed, with the mode of action of these causes.

5. Describe the Cainozoic or Tertiary deposits of the Atlantic States and of our Western Territories, and state their supposed parallelism with European types.

6. Describe the Jurassic or Oolitic group, as it occurs in England, with the equivalent formations ascertained in America.

7. State the subdivisions of the Carboniferous group, and explain the mode of formation of Coal, with reference to the vegetable forms of the period.

8. Describe the Niagara and Trenton groups, and state their geological relations.

9. State the geological relations of the following formations: Oriskan Cincinnati, Lingula Flags, Ludlow,—and describe one of them.

10. State in order the portions of the geological scale of chronology represented in Canada, with their general geographical distribution.

11. Mention the leading characteristics of animal and vegetable life in the several ages of the Mesozoic time in Europe and America.

12. Mention some characteristic genera of Marine Fossils of the Upper Silurian, the Carboniferous, and the Cretaceous periods, respectively.

13. Describe jointing, slaty structure, and foliation, with the causes to which they are attributed.

14. Describe the leading phenomena of volcanic action, and the nature of volcanic products.

15. Name and refer to their geological horizons the fossils exhibited.

THIRD YEAR EXAMINATION FOR HONOURS.

MINERALOGY.

WEDNESDAY, APRIL 12TH:—MORNING, 9 TO 12.

Examiner.....J.W. DAWSON, LL.D., F.R.S.

1 What are the primary forms of the Hexagonal and Monoclinic systems of crystallization?

2. Explain lamellar and fibrous structure.

3. State the more important physical characters of minerals, with examples of their use in determining species.

4. Explain fully any two of the following terms:—(*a*) Pseudomorph, (*b*) Botryoidal, (*c*) Dimorphism, (*d*) Conchoidal.

5. Explain Cleavage, and mention some cases where it is important.

6. Mention some minerals which can be readily distinguished by their Hardness or Specific Gravity.

7. Describe the several Felspars, with their differences and modes of occurrence.

8. Describe Calcite, Barite, Pyroxene and Mica, with their relations to rocks and mineral veins.

9. By what characters can Magnetite be distinguished from Specular Iron, and Blende from Tinstone.

10. State the Composition of the principal ores of Copper.

11. Mention the Principal Varieties of Quartz, and describe two of them.

(2 P. M.)

12. Give the names of the minerals exhibited and the characters on which you base your determinations.

ELEMENTARY LITHOLOGY.

FRIDAY, APRIL 21ST;—MORNING, 9 TO 12.

Examiner, ... J. W. DAWSON, LL.D., F.R.S.

1. State the distinction between Acidic and Basic Rocks and classify the ordinary Igneous Rocks under these heads.

2. Name the more important Metamorphic Rocks containing Orthoclase, Hornblende, Quartz and Mica. Describe one with its geological relations in Canada.

3. What are the constituent minerals and geological relations of Basalt, Dolerite, Felsite, Hornblende Schist and Ophiolite?

4. What are the causes of Combs, Horses and Slickensides in Mineral veins?

5. Describe the structures indicated by the terms Oolitic, Amygdaloidal, Porphyritic.

6. Name the Silicious minerals most important as constituents of rocks, and describe one, stating its chemical composition and geological relations.

7. State the composition and mineralogical and geological relations of the principal Platonic Rocks.

8. Define the terms Sedimentary, Volcanic, Metamorphic, as applied to rocks, and give an example of each.

9. Describe the rocks exhibited; stating their composition, names, modes of occurrence and places in the classification.

B.A. EXAMINATION FOR HONOURS.

LITHOLOGY AND PHYSICAL GEOLOGY.

WEDNESDAY, APRIL 5TH;—MORNING 9; AND AFTERNOON 2.

Examiner,.....J. W. DAWSON, LL.D., F.R.S.

1. State in a tabular form the classes and orders of Rocks, with examples of each.

2. What are the distinctive peculiarities of Amygdaloids, Porphyries and Basalts?

3. A section exhibits beds of Hornblendic Gneiss, Mica Schist, Quartzite and Ophiolite, traversed by veins of Diorite. Classify and describe the rocks occurring in the section.

4. State in tabular form the composition and classification of the following Rocks :—Syenite, Trachyte, Elvanite, Chlorite Schist, Protogine, Melaphyre.

5. What are the principal facts to be observed in studying Conglomerates and Breccias?

6. What are the facts to be observed and inferences to be deduced in the case of Unconformable Superposition and Inclined Faults?

7. Explain the indications of Mineral veins and the modes of tracing them.

8. Give a classification of Mineral veins, and explain the theories of their formation.

9. Describe the mode of occurrence and principal varieties of Coal, and its distribution in North America.

10. Mention the facts to be observed and noted in examining a natural section or exposure of rocks, and the methods of ascertaining and recording them.

11. Explain the causes of the disintegration of Granitic Rocks, and the nature of the sediments derived from them.

12. Explain concretionary structures, and give examples.

13. Illustrate the difficulties which arise from contortions of strata combined with denudation.

(2 P.M.)

14. Describe the specimens exhibited, stating their composition and mineral ingredients, classification and geological relations.

MINERALOGY.

WEDNESDAY, APRIL 12TH :—MORNING, 9 TO 12.

Examiner.....J. W. DAWSON, LL.D., F.R.S.

1. What are the principal differences between Fluor-spar, Heavy-spar, and Dolomite?

2. What are the principal triclinic Felspars, and into the composition of what rocks do they enter?

3. What are the most important Hydrous Silicates of Magnesia in the mineral kingdom, and what their geological relations and probable origin?

4. Describe chemically the more important minerals of Chromium, Antimony and Mercury.

5. State the composition of Spinel, Garnet and Epidote, and explain their occurrence in metamorphic rocks.

6. Describe the mode of occurrence and geological relations of Tin, Rock-salt and Petroleum.

7. What are the more important chemical, physical and geological relations of Pyroxene and Hornblende?

8. Describe some of the principal Hydrous Silicates of the Zeolite section.

9. What are the distinctive characters of Calcite and Aragonite, and of Pyrite, Marcasite, and Mispickel?

10. Mention the more important Minerals containing Fluorine, Chromium and Boracic Acid.

11. Name and describe the Sulphides of Copper, Lead and Zinc.

12. Name and describe fully any one of the specimens exhibited.

GEOLOGY AND PALÆONTOLOGY.

FRIDAY, APRIL 21ST :—MORNING, 9 TO 12 ; AFTERNOON, 2 TO 5.

Examiner,.....J. W. DAWSON, LL.D., F.R.S.

1. Describe the Lower Laurentian Formation in Canada, with its distribution and fossils.

2. Describe the Huronian Rocks of Canada with their mineral veins.

3. Describe the Potsdam, Calciferous and Chazy formations, with their European equivalents and their relations to the Quebec group.

4. What formations in Canada would be indicated by the prevalence of the following genera—*Phyllograpsus*, *Paradoxides*, *Pentamerus*, *Spirifer*, *Zaphrentis*.

5. Describe the principal mineral deposits of the Lower Silurian formations in the Province of Quebec.

6. Describe *Scolithus*, *Ambonychia*, *Ophileta*, *Murchisonia*, *Stromatopora*, and state their geological relations.

7. How is the Cambrian of England represented in Eastern America ?

8. Enumerate the characteristic fossils of the Trenton Limestone, and state shortly their Zoological relations.

9. State the subdivisions of the Carboniferous system in British America, with the genera of shells characteristic of the marine members of the system.

10. State the leading features of the Vegetation of the Devonia n age.

11. Give a short sketch of the Palæozoic Geology of the environs of Montreal.

Describe either of the following Formations, as occuring in Canada, with its fossils and distribution :

Corniferous Limestone.
Clinton group.
Guelph Formation
Oriskany Sandstone.

2 P. M.

Examination in specimens.

GEOLOGY AND PALÆONTOLOGY.

MONDAY, APRIL 24TH :—MORNING, 9 TO 12 ; AFTERNOON, 2 TO 5.

Examiner,.....J. W. DAWSON, LL.D., F.R.S.

1. What evidence exists of the presence of the Permian in Canada, in connection with the observed relations of the Carboniferous and Triassic

2. Describe the formations of the earlier part of the Mesozoic in Europe and America, with their useful minerals and characteristic fossils.

3. Give an account of the subdivisions and distribution of the Eocene and Miocene Tertiary in Manitoba and the North West Territories, and mention their peculiarities in these regions.

4. Name the characteristic Reptilian and Cephalopodous genera of the Jurassic period, and describe one of the formations of this period in Europe.

5. State the geographical distribution and subdivisions of the Cretaceous in America and Europe, and explain its peculiar development in British Columbia.

6. Explain the structure, fossils and geological age of the Lias, Calcaire Grossier, London Clay, and Coralline Crag.

7. Explain the mode of formation and geological age of the Nummulitic and Orbitoidal Limestones.

8. Describe the geological period immediately preceding the age of man —its formations and fossils.

9. To what Geological Formations do the following fossils belong :— *Microlestes*, *Pentacrinus*, *Placodus*, *Hemicidaris*, *Ventriculites*, *Voltzia*.— Describe one of them.

10. Give a short account of the Pleistocene geology of the vicinity of Montreal.

11. Explain the general arrangement of the Miocene and Pliocene Formations on the Atlantic Coast of the United States.

12. Mention any illustrations of Igneous activity in the Mesozoic and Cainozoic periods in North America.

2 P. M.

Examination in specimens.

DEPARTMENT OF PRACTICAL AND APPLIED SCIENCE.

ENGINEERING.

JUNIOR YEAR.

DRAWING.

SATURDAY, APRIL 8TH;—MORNING, 9 TO 12.

Examiners..... } G. F. ARMSTRONG, M.A., C.E.
} C. H. MCLEOD, BAC. APP. SC.

Project orthographically:—

1. A square plane of 1.75 inches side, which has one diagonal at right angles to the vertical, and the other at 35° to the horizontal.

2. A cube of 2.15 in. edge, which rests on one of its solid angles; one diagonal of the base making an angle of 30° with each plane.

3. An hexagonal prism of 1 inch side and 4 inches long, when the axis is vertical, and one face makes an angle of 40° with the vertical plane.

(*a*) Give the section made by a plane passing from one angle at the top to the opposite angle at the bottom.

4. A cylinder 5 inches long and 1.6 diameter, penetrates a cone 5 in. high, the base of which is 3.4 inches in diameter. Their axes meet at the centre. That of the cone is vertical, while that of the cylinder makes an angle of 30° with the horizontal.

(*a*) Give the development of the surface of the cone, showing the lines of penetration.

5. Show by its vertical and horizontal trace a plane which rests upon uprights of 1, 2 and 3 inches respectively, drawn from the angles of an equilateral triangle of 2 inch side.

Project isometrically:—

6. A frustrum of a cone whose height is 2.5 inches, and the diameter of its ends 2 inches and 1.25 inches respectively. The figure stands on its base.

NOTE.—Neatness and accuracy are essential. Construction lines should be dotted.

JUNIOR YEAR.

SURVEYING.

SATURDAY, APRIL 8TH:—AFTERNOON, 2 TO 5.

Examiner .....G. F. ARMSTRONG, M.A., C.E.

1. What surveying instruments depend for their action on (*a*) the magnetic needle, (*b*) the laws of reflection?

2. Explain clearly what is meant by *meridian distance*.

3. Find a closing line for the following: Station (1) N. 78° E., distance 2·20 chains; (2) N. 45° 30′ E., 14·80 chs.; (3) N. 16° W., 21·75 chs. (4) N. 68° 20′ E., 13·90 chs.; (5) N. 10° W., 15·60 chs.; (6) N. 70° E. 8·96 chs.

4. Explain and illustrate the more important purposes for which the Theodolite is used.

5. Prove the principle of the diagonal scale, and state the objects to which it is applied.

6. What are the chief operations in connexion with a trigonometrical survey.

7. Describe the horizontal limb of the Transit-Theodolite.

8. Explain fully the principle of the adjustment for parallax in the Theodolite and Level.

NOTE.—In addition to this paper two surveys were plotted by each student during the Session; one from original field, notes and the other from notes supplied.

MIDDLE YEAR.

DRAWING.

MONDAY, APRIL 10TH:—MORNING, 9 TO 12.

Examiners ..... { G. F. ARMSTRONG, M.A., C.E. / C. H. MCLEOD, BAC. APP. SC.

Project perspectively on a scale of half an inch to the foot; the height of the eye being six feet and the distance of the spectator twelve feet:

1. A case of shelves which is made of material 2 in. thick and contains four compartments, each 2 feet square and 2 feet deep. It is four feet on the left of the spectator, and its face makes an angle of 30° with the picture plane.

2. A right pyramid whose altitude is 8 feet and base a regular pentagon of 2 feet side. An angle of the base is four feet on the right of the specta-

or, and one side containing it makes an angle of 30° with the picture plane. The object is four feet within the picture.

3. A block of wood 4 feet square by 1 foot high is surmounted by an octagonal prism of 1 foot side, whose height is 8 ft, and upon which stands a circular block 4 feet in diameter and 1 foot in height. The axes of all three coincide. The object is in the foreground and 3 feet on the left, and one side of the base makes an angle of 30° with the picture plane.

4. A cylinder, the diameter of whose end is 4 feet and length 6 feet, is so placed that its length makes an angle of 30° with the picture plane, 6 feet on the left, and 4 feet within the picture.

NOTE—Neatness and accuracy are essential. Construction lines should be dotted.

MIDDLE YEAR.

SURVEYING AND LEVELLING.

MONDAY, APRIL 10TH:—AFTERNOON, 2 TO 5.

Examiner.....G. F. ARMSTRONG, M.A., C.E.

1. Describe the Circumferenter and the Prismatic Compass, and point out in what respect they are alike, and wherein they differ.

2. Determine from the following observations the length of the lines the distances of which it was found impossible to ascertain in the field: At Station (1) the bearing of (2) was S. 71° 24′ W.; at (3) Station (2) bore S. 46° 18′ E.; (3) N. 15° 42′ E.; 6·20 chs.; (4) N. 52° 18′ E., 6·75 chs.; (5) S. 78° 48′ E., 5·96 chs.; (6) S. 5° 51′ E., 4·84 chs.; (7) S. 49° 15′ W., 4·75 chs.; (8) S. 4° 57′ E., 3·98 chs. to place of starting.

3. Explain the two methods of using the Theodolite.

4. Describe fully the principle of the Vernier, and show how to make a Sextant read to 15 seconds.

5. What are the necessary conditions of the base of a trigonometrical survey; and by what means is it usual to ascertain the exact length of the line?

6. Show how a comparatively short base may be connected with the sides of large triangles without either prolonging it, or introducing ill conditioned triangles.

7. How is the line of collimation adjusted in (*a*) the Transit, (*b*) the common Theodolite?

8. Describe minutely the construction of the Troughton and Dumpy forms of level, and state what advantage the latter has over the former.

NOTE:—In addition to this paper there was a *viva voce* Examination; and each student also plotted, during the Session, a section and survey; the former from orignal field notes, and the latter from notes supplied.

MIDDLE YEAR.

MENSURATION.

THURSDAY, APRIL 20TH :--AFTERNOON, 2 TO 4.

Examiner,.....G. F. ARMSTRONG, M.A., C.E.

1. Find the diagonal of a cube the edge of which is 12 feet.

2. Given the three sides of a triangle, find the length of the line bisecting any of the angles.

a. The sides of a triangle are 200, 300 and 350, find the length of the line bisecting the angle between the longest and shortest sides.

3. Give some methods employed in computing the area of an irregular field.

a. By what means can you reduce an area of any shape to a triangle having the same area ? Illustrate your answer.

4. How is the area of an ellipse derived from that of a circle ?

5. Find the volume and surface of a sphere.

6. Find the volume of an ellipsoid whose principal diameters are 8, 10 and 16 inches.

a. How do you arrive at the method employed ?

7. In a cutting of length l ; end areas B and B′ ; and middle section M, prove that

$$\text{Cubic Content} = \frac{l}{6}(B + B' + 4\,M.)$$

BAC. APP. SC. AND MIDDLE YEAR EXAMINATIONS.

CONSTRUCTION.—(FOUNDATIONS.)

SATURDAY, APRIL 8TH :—MORNING, 9 TO 12.

Examiner,..... G.F. ARMSTRONG, M.A., C.E.

1. What general rules would guide you in the management of foundations wherever there is a doubt as to the stability of the ground ?

2. How would you treat the case of a crust of good ground resting upon a treacherous substratum ?

3. What special precautions are necessary when dealing with ground that is affected by exposure to air or water ?

4. To what condition of things are timber caissons applicable; and what points require special attention in their design and use?

5. For what purposes are screwpiles particularly suited; and how are they placed *in situ?*

6. What peculiar use do the French Engineers make of sand, and the Dutch of fascines in the construction of foundations?

7. How would you determine the proper thickness of concrete for a foundation.

8. What precautions are needful in the arrangement of (*a*) footings, (*b*) inverts.

9. Describe the construction of an ordinary cofferdam, and state how you would determine the strength of its parts.

10. Explain how a timber pile is shod, rung, and driven, and by what processes it may be preserved from decay.

11. Describe Kennard's Sand-pump, and say what you know about its use.

12. Explain the various methods of forming a cofferdam on a rocky bottom.

NOTE:—Answers should be concise, and as far as practicable illustrated by figure or diagrams.

BAC. APP. SC. AND MIDDLE YEAR EXAMINATIONS.

PRODUCTION AND TREATMENT OF IRON.

SATURDAY, APRIL 8TH:—AFTERNOON, 2 TO 5.

Examiners,..... { G. F. ARMSTRONG, M.A. C. E.
B. J. HARRINGTON, B.A., PH.D.

1. Give the names and composition of the different ores of iron.

2. What are the objects of calcining iron ores previous to their treatment in the blast-furnace? Describe Gjers' kiln.

3. Describe any two forms of lift employed in raising the charges to the throat of a blast furnace.

4. What impurities are generally found in pig and wrought iron, and what effect have they upon the strength of the iron?

5. Describe fully the Bessemer and Cementation processes for the manufacture of steel.

6. How are pig irons generally classified, and upon what does the classification depend?

7. Explain the following terms: Heavy and low burden, twyer, boshes, fire-bridge, and puddle-ball.

8. What are the characteristics of pig suitable (*a*) for casting, (*b*) for forging purposes?

9. Name some effects of the position in which a casting is made, and give an explanation.

10. What is the object of *shingling*, and how is it performed?

11. Explain the process of making a rail.

12. How are the different qualities of malleable iron distinguished commercially?

BAC. APP. SC. EXAMINATION.

PRINCIPLES OF MECHANISM.

TUESDAY, APRIL 11TH:—MORNING, 9 TO 12.

Examiner,..... ..G. F. ARMSTRONG, M.A. C.E.,

1. Give an outline of some of the principal methods adopted for the conversion of circular into reciprocating motion.

2. Give some illustrations of the use of cams in machinery, and show the principle of the worm-barrel employed in printing-machinery.

3. In the common form of the crank and connecting rod, where CP. is the crank and PQ. the connecting rod; find the position of Q. for any given position of CP.

4. Show that the swash-plate is equivalent to a crank with an infinite link.

5. Give some examples of reversing motions employed in machinery.

6. Prove that in the communication of motion by contact of surfaces, the angular motions of the pieces are inversely as the segments into which the common normal divides the line of centres.

7. Describe Watt's Indicator and its mode of action.

8. Show that the velocity-ratio of two pieces, when constant, is obtained by comparing the entire spaces described respectively by the driver and follower in the same time, whatever changes the actual velocities may have undergone during that time.

9. Explain clearly the nature of the problem to be solved in determining the proper form for the teeth of wheels; and state what objection lies against the involute form.

10. Describe and explain the action of the "Gorgon" parallel motion.

11. Describe the action of Stephenson's link-motion, and point out its special advantages.

12. Explain the following: *fusee, speed-pulley, pitch-circle, escapement, hunting-cog, crown-wheel, spindle, paul, dead-point, lantern-pinion, detent train-value.*

BAC. APP. SC. EXAMINATION.

GENERAL PAPER.

TUESDAY, APRIL 11TH:—AFTERNOON, 2 TO 5.

Examiner,.....G. F. ARMSTRONG, M.A., C.E.

1. What is the geostatic arch, and what are its applications?

2. In taking soundings, show how their position may be determined by means of a series of angles.

3. What are the conditions of the equilibrium of a structure?

4. Describe fully the operation of cutting, and state how you would determine the most economical number and proportion of labourers in any given case.

5. What is the most accurate method of ascertaining the angle subtended by two objects by means of the sextant?

6. Enumerate the various classes of masonry employed in engineering works, and state the purposes for which each is adapted.

7. How would you show the bed and side-joints of the spiral courses on the soffit-development of a skew-arch?

8. What is the object of canting rails? Determine the necessary amount of cant for a train travelling at 45 miles per hour on a curve of 8 chains radius, ordinary gauge.

9. Give an account of the method usually employed in the measurement and estimation of the flow of streams.

10. What considerations would influence you in fixing upon a suitable place for a station on a line of railway.

11. Give an easy method of testing the uniformity of the curvature of a curve that has already been ranged.

12. What provision would you make for the settling and filtration of a water-supply for a town.

NOTE:—Answers should, as far as practicable, be illustrated by figures and diagrams.

Bac. App. Sc. EXAMINATION.

PRACTICAL MECHANICS.

Thursday, April 20th:—Morning, 9 to 12.

Examiner,.....G. F. Armstrong, M.A., C.E.

1. Show that the principle of the fusee exists wherever the arm of a lever changes continually.

Prove the principle of Blake's stone-crushing machine.

2. State and illustrate the laws of friction.

Find the least force that will drag a body of weight W along a rough horizontal plane.

3. Determine the quantity of work absorbed by the friction of a pivot.

The arm of a screw press is 2 ft. long, and is actuated by a force of 157·5 lbs.; the diameter of the screw is 3 in., and it makes one turn to the inch; what force will it exert, taking the pivot-friction ($\mu. = \cdot 075$) only into consideration?

4. Determine the "line of resistance" in a rectangular mass of masonry acted upon by a force applied obliquely to one edge of its summit.

A roof of 40 ft. span and 50° pitch weighs 20 lbs. per square foot; the walls that support it are of brick and 50 ft. high and 2 ft. thick; they are strengthened by buttresees of a triangular form reaching to the top of each wall; the buttresses are 2 ft. wide, and 20 ft. apart from centre to centre. What must be their thickness at the bottom, so that the line of resistance may come 6 in. within their extrados.

5. How is the pressure of water against a wall determined?

A row of sheet piling, subjected to the pressure of 26 ft. of water, is supported at intervals of 10 ft. by two struts, one of which abuts against the piling 4 ft., and the other 18 ft. from the bottom; the upper strut is 30 ft., and the lower 18 feet long. Neglecting the adhesion of the piles in the ground, find the thrust on each strut.

6. Prove that, in the case of a revetment wall loaded with earth having a level surface, we may find its pressure by regarding it as a fluid, the weight of a cubic foot of which is equal to that of a cubic foot of the earth multiplied by the square of the tangent of half the angle of its natural slope from the vertieal.

A revetment wall 40 ft. high sustains the pressure of a mass of earth the angle of repose of which is 45°, and the weight of a cubic foot 100 lbs.; determine the thickness of the wall, supposing a cubic foot to weigh 130 lbs., so that it may be just on the point of turning.

7. Prove that the line of pressure is perpendicular to the voussoir joints in the equilibrated arch.

Find the limits within which friction may be trusted to assist an arch in bearing a load.

8. Find the equation to the catenary.

Is it possible to stretch a cord of weight W quite horizontal?

8. Define and illustrate the term "moment of inertia."

If k be the radius of gyration of a body with reference to an axis passing through its centre of gravity, and k, its radius of gyration with reference to an axis parallel to the former and at a perpendicular distance from it equal to h, show that

$$k^2 = k^2 + h^2$$

10. If the effective accelerating forces of the several parts of a connected system be applied to them in directions contrary to those in which they act, they will, together with the impressed accelerating forces, satisfy the statical conditions of equilibrium.

Determine the position of steady motion in Watt's Governor.

11. Show how to determine the quantity of work stored up in a body moving in a straight line, and deduce that of a body moving in a circular path.

A rod 6 ft. long turns round one of its ends from an angle of 60° to the horizon; find its angular velocity when it reaches the horizontal, and the number of degrees through which it would move in one second if the same angular velocity were maintained.

12. Determine the point of the stroke of a steam engine at which the steam must be cut off so as to perform the greatest amount of work.

The length of the stroke of an engine is 8 ft., the pressure of steam is 36 lbs., that of the vapour in the condenser is 3 lbs., and the total resistance of friction is 2 lbs. per square inch of the piston; find where the steam must be cut off so as to yield all its available work.

Bac. App. Sc. EXAMINATION.

DRAWING.

Thursday, April 20th:—Afternoon, 4 to 6.

Examiners,..... { G. F. Armstrong, M.A., C.E. / C. H. McLeod, Bac. App. Sc.

1. Construct a regular pentagon equal in area to a square of 3 ft. side.

2. Draw a parabolic arch, the span of which is 5.5 ft. and the rise 2.5 ft.

3 A cylindrical pipe 3 ft. in diameter, is cut so as to turn an angle an 120°.

(*a*) Give plan and elevation when the upper portion makes an angle of 30° with the vertical.

(*b*) Give the true section where the pipe is cut.

(*c*) Give the development showing the line of section.

4. Draw the isometric projection of a single line of railway on embankment. Gauge 4 ft. 8½ in. Formation to rail level 2 ft. 4 in. Road width at *formation* level 18 ft. Slopes 1½ to 1.

5. Project perspectively, a pyramid whose base is a regular hexagon of 1½ ft. side, and whose altitude is 9 ft. An angle of the base is five feet on the left of the spectator, and three feet within the picture. One of the sides containing this angle makes an angle of 20° with the picture plane.

Scales. { 1, 2 and 3.....1 in. = 1 ft. ; 4.....¼ in. = 1 ft. ; 5.....½ in. = 1 ft. }

NOTE:—Lines of construction should be dotted. Neatness and accuracy are essential.

BAC. APP. SC. EXAMINATION.

DESIGNS AND ESTIMATES.

SATURDAY, APRIL 22ND:—9 A.M. TO 5 P.M.

Examiner,.....G. F. ARMSTRONG, M.A., C.E.

Prepare a design and estimate for one of the following structures:

1. The superstructure of a Howe-truss Bridge, for a single line of railway and 60 ft. span.

2. An Iron Roof of the form of the accompanying sketch, to cover a space 80 ft. long by 60 ft. broad.

3. A Tunnel, 2 chains long, with its faces, in bad and loose ground.

NOTE:—The general design need not be a finished drawing or made to a large scale; but the details—which should be such as would be required for the actual construction of the work—must be carefully prepared and drawn to suitable scales.

BAC. APP. SC. EXAMINATION.]

GERMAN.

FRIDAY, APRIL 21ST:—AFTERNOON, 2 TO 5.

Examiner,.....C. F. A. MARKGRAF, M.A.

I. Translate into German:—

The stranger shook my hand warmly when we parted, and promised to write to me at (bei, Dat.) the first opportunity. Every one calls him a wise man, and few deserve this name as *well as* he *does*. The brave young soldier felt the blood trickling down his face, before he knew he was wounded. The proud lady received her visitors without rising. The sailors lowered the plumb-line (Senkblei, n.) into the sea, but they could find no ground (Boden, m.) and their courage *fell* sank) when they considered (bedenken, Imperf.) how far they were still distant from (the) land.—Our trip last autumn was very pleasant. First we went to the Harzynian Forest; then by Cassel to Frankfort, where we stopped (bleiben, Imperf.) *for* a week; and lastly we went (fahren, Imperf.) down the Rhine, where we had *an* opportunity o seeing the far-famed Loreley and of hearing the seven-fold echo.

II. Translate from Lessing's „Nathan der Weise":—

Act 1., Scene 5., Pages 34–35.

Act 2., Scene 3., Pages 56–57.

III. Grammar.

1. (*a*) How may substantives be derived in German? Explain fully (*b*) State the affixes which serve for the derivation of verbs, and give their respective meanings.

2. (*a*) Mention *six* verbs which govern the Genitive or Accusative. (*b*) Which *reflective* verbs govern the Dative? (*c*) Which *two* verbs govern the Genitive *only*? (*d*) Which verb governs the Dative when the object is a person, and the Accusative when the object is a thing? (*e*) Which *two* verbs govern the Accusative of both person and thing?

3. Explain the various constructions of which sprechen, sagen, senden and schreiben may *severally* be susceptible.

4. Translate into *idiomatic* German:—I take pity on him—it fares well with me—they do not covet that—we (have) heard them come—I am assisted—what ought he to have done?—you may say what you like—I should like to go with you—I wish he might come.

5. When are the Future tenses used in German and not in English?

6. Enumerate the cases where the English prep. '*of*' is rendered by „von" in German.

IV. Literature.

1. Name the oldest monument of German rhyme, and give its date.

2. Give some account of *Sebastian Franke, Georg Rollenhagen,* and *Jacob Boehme.*

3. Write what you know of the two *Silesian* schools and their leaders.

4. Give a short sketch of the life of *Lessing.*—What can you say as to the character of his writings?—Give the titles of his principal dramas, and a brief outline of the plot of '*Nathan der Weise.*' Can you point out the *moral* of this play?

MINING COURSE.

MIDDLE YEAR.

BLOWPIPE ANALYSIS AND ASSAYING.

THURSDAY, APRIL 20TH:—MORNING, 9 TO 11.

Examiner, ...B. J. HARRINGTON, B.A., Ph.D.

1. Describe the sublimates produced by heating Mispickel, Cinnabar, and Bournonite, in closed tubes.

2. How may small quantities of Boracic Acid and Fluorine be detected in minerals?

3. Name, in their proper order, the minerals constituting the scale of fusibility, and explain the use of this scale.

4. Give the Blowpipe characters of the following minerals:—

Stibnite,	Molybdenite,
Chalcocite,	Cassiterite,
Chromite,	Ilmenite
Calamine,	Cryolite.

5. Describe the Zinc assay with Sulphide of Sodium, stating what precautions are necessary if the ore contains Copper.

6. Give the details of the Iron assay with Bichromate of Potash, and also your opinion as to the value of this method.

7. Describe Levol's assay for Antimony ores.

8. Give a method for the determination of Titanic Acid in an Ilmenite.

Assaying and Determination of Minerals with the Blowpipe in the Laboratory.—2 p.m. to 6 p.m.

DRAWING.

MONDAY, APRIL 10TH:—MORNING 9 TO 12.

Examiners, ... { G. F. ARMSTRONG, M.A., C.E. / C. H. MCLEOD, BAC. APP. SC.

Project isometrically:—

(1.) A cylinder of 2 in. diameter and 4 in. long, when it stands on its end.

(2.) A vertical section showing three strata of rock, 30, 40 and 50 feet respectively in depth, measured in a shaft which is perpendicular; the angle of dip being 10°.

Project orthographically :—

(3.) A cone whose altitude is 4 in. and diameter of base 3 in.

(*a*) Show the true section caused by a plane cutting this cone so as to form an ellipse whose axis-major measures 2 in.

(*b*) Show the development of the cone with the line of penetration caused by the plane.

NOTE.—Construction lines should be dotted. Neatness and accuracy are essential. Scale for question 2. 20 feet = 1 in.

FIRST YEAR.

ELEMENTARY CHEMISTRY.

WEDNESDAY, APRIL 19TH :—AFTERNOON, 2 TO 5.

Examiner,.....B. J. HARRINGTON, B.A., Ph.D.

1. Describe the different allotropic forms of Sulphur.

2. How much Sodic Chloride and Hydric Sulphate would be required to make a thousand kilogrammes of aqueous Hydrochloric Acid (42 per cent. HCL by weight) ?

3. What is the best test for the detection of Hydric Cyanide, and what the best antidote in cases of Arsenic poisoning ?

4. How is Chlorine prepared, and what are its properties ?

5. Describe the extraction of Copper from its ores as carried out at Swansea.

6. Give full details of the manufacture of Sodic Carbonate.

7. What is the best way to prepare pure Silver ?

8. Describe the manufacture of Phosphorus, illustrating the chemica changes which take place by means of equations.

9. Give the chemical composition of the following substances :—Brunswick Green, Cadmium Yellow, Lunar Caustic, Glauber's Salt, and Plaster of Paris.

10. Explain the changes indicated by the following equations :—

$$3\,K\,H\,O + P_4 + 3\,H_2\,O = 3\,K\,P\,H_2\,O_2 + H_3\,P.$$

$$Hg\,S\,O_4 + 2\,Na\,Cl = Na_2\,SO_4 + Hg\,Cl_2.$$

METEREOLOGY.

MONDAY, APRIL 17TH:—MORNING, 10 TO 12.

Examiner,.....C. H. MCLEOD, BAC. APP. SC.

1. Explain the construction of an ordinary rain gauge and how it is used.

2. Explain the construction of the barometer, and state the corrections which are necessary in order that observations made at different stations may be intercomparable.

(*a*) How is this instrument used in the measurement of heights?

3. How would you graduate a thermometer, and what precaution is necessary in order that the same volume of mercury may at all temperatures represent an equal number of degrees?

4. Define "dewpoint."

(*a*) How can this be determined?

(*b*) Explain the construction of an instrument used for measuring the amount of moisture in the air.

5. How is dew formed?

6. Why does the barometer fall under a cloud?

7. Describe a recording anemograph.

8. The temperature of the air is 42·6 and that of the wet bulb thermomerfifrom Guyot's tables the corresponding pressure of aqdtuos u 38 .n5; vapour and relative humidity.

FACULTY OF LAW.

FIRST YEAR.

COMMERCIAL LAW.

Examiner.....Professor Wurtele, Q.C., B.C.L.

OBLIGATIONS.

1. What conditions are requisite in all cases for the validity of a contract, and of the obligations arising from it?

2. Give the principal divisions of contracts.

3. What persons are legally incapable of contracting?

4. What is fraud, and when is it a cause of nullity?

5. When is error a cause of nullity?

6. Who may impeach contracts alleged to be fraudulent; and within what time must it be done?

7. What is the effect of a contract for the alienation of property?

8. When can a party stipulate for the benefit of a third person, and when does such stipulation become irrevocable?

9. On whom lies the burden of proof in an action to recover a payment alleged to have been made through error?

10. What is the measure of damages,—first, in obligations where the object is not a sum of money; and secondly, in obligations where the object is a sum of money?

FIRST YEAR.

CIVIL LAW.

Examiner,.....Professor Rainville.

1. Par quelle loi sont régis les biens-meubles?

2. Par quelle loi sont régis les actes?

3. Quels sont les effets de la mort civile?

4. Où doit être célébré le mariage?

Que doit contenir l'acte de mariage?

5. Où est le domicile du mineur?

6. Quels sont les droits de l'absent qui reparaît 1. contre l'envoyé en possession; et 2. contre les tiers qui ont contracté avec l'envoyé en possession?

FIRST YEAR.

ROMAN LAW.

Examiner.....PROFESSOR TRENHOLME, M.A., B.C.L.

1. What are some of the things that give importance to the study of Roman law, and render it properly a part of a university course in law?

2. What are the chief matters treated of in the history of Roman law?

3. En combien de périodes divise-t-on l'histoire du Droit Romain: expliquez les évènements politiques et constitutionnels qui distinguent ces diverses périodes?

4. Give some account of the great Roman magistracies, the time and mode of their origin, and particularly of the Prætorship.

5. Quelles ont été les principales sources du droit depuis les XXII. Tables jusqu'à Justinien, et definissez ce qu'il faut entendre par les sources du droit que vous avez a énumér? Quelles étaièn les *leges valeriae?*

6. Give some account of the mode of Government and administration of Justice in the Roman Provinces in the time of Cicero; and state by what means chiefly did Roman jurisprudence become assimilated throughout the Empire?

7. What are the great agencies in the amelioration of law? give some account of their operation in Roman Law, and state the periods at which they respectively acted thereon.

8. Faites l'historique des differentes tentatives de codifier les lois romaines. Quels sont les principaux caractères distinctifs des differentes parties du *Corpus Juris Civilis?*

9. Give as full an account as you can of the influence of Greek Philosophy on Roman Law, and of the time and mode of that influence.

10. What were some of the causes of the superiority of Roman Law?

11. What was the nature and what the causes of the change in the Roman Constitution known as the Servian Constitution, and what means have we of forming any judgment in this matter?

12. Give some account of the principal Schools of Law.

13. What are the great natural family relations, and what their artificial extensions in Roman Law, and in Modern Law?

N.B.—The first 9 questions are for the ordinary examination: all for honors.

FIRST YEAR.

LEGAL HISTORY.

Examiner,.....M. Lareau.

1. Quelles sont les principales sources du droit Canadien?

2. Comment se composait le droit commun de la France avant 1663?

3. Quelles sont les principales ordonnances des Rois de France émanées au XVI. siècle, et énoncez les principales dispositions qu'elles renferment?

4. A quelle date remonte la création du Conseil Supérieur de Québec; dites ce que vous savez de sa composition, de ses pouvoirs, privilèges et attributions, et des modifications apportées par la suite à sa composition?

5. Dites ce que vous savez de l'organisation judiciaire sous la domination française?

6. Rapportez les principaux évènements diplomatiques, administratifs et judiciaires qui se sont passés dans la colonie, ou relativement à la colonie, à partir de 1759 jusqu'à 1764.

7. Quelle est la forme de gouvernement qui régit le Canada de 1764 à 1774.

8. Quels sont les changements que l'acte de Québec de 1774 apporta dans l'administration du Canada, et quelle est la forme de gouvernemant qui prévalût dans la colonie de 1774 à 1791.

9. Quelles sont les principales clauses de l'acte constitutionnel de 1791 et veuillez mentionner l'objet des luttes parlementaires les plus importantes à partir de 1791 jusqu'à 1840.

10. Quelles sont les principales clauses de l'acte d'Union et veuillez mentionner l'object de luttes parlementaires les plus importantes à partir de 1840 jusqu'à 1867.

FIRST AND SECOND YEARS.

LEGAL HISTORY.

Examiner,.....M. Lareau.

1. De quoi se compose l'ensemble de la bibliographie du droit Canadien.

2. Quelles sont les grandes écoles du droit français et énumérez les noms de leurs principaux chefs?

3. Quels sont les droits et obligations du locateur.

4. Quels sont les droits et obligations du locataire.

5. Quelles sont les responsabilités du voiturier par terre et par eau.

6. Quels sont les effets du contrat de rente viagère.

7. Mentionnez les effets du cautionnement entre le créancier et la caution?

8. Mentionnez les effets du cautionnement entre le débiteur et la caution.

9. Mentionnez les effets du cautionnement entre les cofidejusseurs.

10. Quels sont les droits du créancier gagiste.

SECOND YEAR.

CONSTITUTIONAL LAW.

Examiner,.....Mr. Archibald.

1. What are the main differences between prerogative and responsible government?

2. Give an account of the growth of the principle of popular representation in the House of Commons with dates.

3. What were the principal powers and functions of the Saxon Wittenagemot?

4. What was the mode of accession of the Saxon Kings and the powers of the Wittenagemot with regard to them?

5. At what time did Unanimity in the Cabinet become a fixed principle of the Constitution, and give the names of the principle statesmen instrumental in establishing it?

6. Give an account of the principal events which led to the Confederation of the Provinces constituting the Dominion.

7. What are the principal legislative powers of the Federal Parliament?

8. What are the principle legislative powers granted exclusively to the Local Parliament of the Province of Quebec?

9. What are the functions of the Federal and Local Legislatures respectively with regard to the Constitution of the Courts, the appointment and payment of the judges and the establishment of rules of Procedure?

10. What are the respective powers of the Local and Federal Legislatures with relatlon to education.

SECOND AND THIRD YEARS.

CIVIL LAW.

Examiner,.....Professor Rainville.

1. Où s'ouvre une succession ?

2. Quelles sont les qualités requises pour succéder ?

3. Dans quels cas la représentation a-t-elle lieu en ligne directe?

4. Dans quels cas les neveux et nièces viennent-ils par représentation à la succession de leur oncle ?

5. Dans quels cas les créanciers d'un héritier peuvent-ils faire rescinder sa renonciation d'une succession ? quel est l'effet de l'annulation de cette renonciation ?

6. Quel est l'effet de l'acceptation d'une succession sous bénéfice d'inventaire ?

7. S'il y a plusieurs héritiers et plusieurs légataires universels comment contribuent-ils au payment des dettes de la succession ?

8. Quelle sont les effets du partage entre co-héritier ?

SECOND AND THIRD YEARS.

INTERNATIONAL LAW AND COMMERCIAL SALES.

Examiner.....PROFESSOR KERR.

1. What elements must concur in order to constitute a valid sale?

2. Into what classes are commercial sales divided? Give examples of each class.

3. What is the general rule as to the species of evidence required to prove the existence of a contract for the sale of goods, wares, and merchandise? What is the exception to that rule? By what provision of law is it made?

4. What is a warranty? What is the difference between express and implied warranties?

5. What difference is there between a condition and a warranty?

6. What is a vendors lien? In what cases does it exist? How is i lost?

7. What is stoppage in transitu? How is that right exercised and when does it cease to exist?

8. If the vendor neglects to perform his part under an executory contract of sale, what course should the vendee pursue to enable him to recover damages for such breach of contract?

9. If the vendee neglects to perform his part under a like contract, what should the vendor do to enable him to recover damages?

10. If fraud has been practised by the vendor, is the contract void or voidable?

11. What constitutes a reservation of the *jus disponendi*? What effect has such reservation?

12. Can articles stolen or lost, purchased in good faith, be retained by the vendee? Explain the law on this subject.

SCOND AND THIRD YEARS.

CIVIL PROCEDURE.

Examiners..... { Professor Doutre, D.C.L.
M. Hutchinson, B.C.L.

1. Can the Court or Judge on being satisfied by affidavit that a party has a good cause of action, grant leave to proceed in *forma pauperis* in every case? If not, in what case is the Court or Judge unable to do so?

2. How many kinds of preliminary exceptions are there? Give the nature of each, and state when they can be pleaded?

3. What is a demurrer and when can it be pleaded by the Plaintiff and Defendant respectively?

4. In the case of a Defendant being sued on a promissory note, the signature to which has been forged, can he throw the burden of proof of the genuineness of the note on the Plaintiff? If so, how and when is it done?

5. How may the taxation of a witness be enforced, and against whom?

6. Under what circumstances can a *commission rogatoire* be issued, and how are the Commissioners chosen when both parties join in the commission.

7. In what actions may a trial by jury be had, and at what stage of the case must the motion for such a trial be made?

8. How many names of jurors are submitted by the Prothonotary from which to strike the panel? How is the panel struck? How many jurors are summoned to try the cause? How many are chosen? And how many are sufficient to carry a verdict?

9. When and before what Court can the party in whose favor a verdict has been rendered move for judgment on the same?

10. By what means can a motion for judgment on the verdict be opposed?

11. How is the continuance of a suit effected when one of the parties has lost the quality under which he was acting?

12. When and how does peremption of a suit take place? and what it the effect of it on the right of action?

SECOND AND THIRD YEARS.

COMMERCIAL LAW.

Examiner,.....PROFESSOR WURTELE, Q.C., B.C.L.

PARTNERSHIP.

1. What conditions are essential in a Contract of Partnership?

2. How do partners share when there is no agreement about the division of profits and losses?

3. How are partners liable for the obligations of the partnership?

4. Give the different kinds into which partnerships are divided and subdivided.

5. How and when can a partnership not limited as to duration be dissolved?

CORPORATIONS.

6. Give the definition of a Corporation.

7. Give the divisions of Corporations.

8. How are Corporations created?

9. What are the ordinary incidents of Corporations?

10. What are the ordinary disabilities of Corporations; and to what extent has the law prohibiting the acquisition of real estate by Corporations without the permission of the Crown, been amended with respect to Trading Companies?

THIRD YEAR.

ROMAN LAW.

Examiner.....PROFESSOR TRENHOLME.

1. What are primary and what are sanctioning rights? Point out the difference fully between *jura in rem* and *jura in personam*, and the subjects to the Institutes comprehended under each.

2. Give some account of the early history of the law of property and of the agencies that tended to its amelioration.

3. What were the different kinds of *Testamenta* in Roman Law, the requirements of each, and the periods they were in use respectively?

4. How many kinds of Wills in our law, and what is the origin of each?

5. What was the law of abintestate succession under the old civil law of the Romans, and what were some of the changes it underwent in the hands of the Prætor, and of Justinian respectively?

6. Define evidence: what are its different kinds, and some of the leading rules governing its adduction. What were the different kinds of written evidence known to the Roman Law; and what in our law? and point out differences as to manner of proof or disproof.

7. Give some account with dates of the limitations put on parol evidence and state fully what may and what thi gs may not be proved by parol under our law.

8. What was the law of evidence in this Province at the time of the Cession, and give an historic sketch of the changes therein since, mentioning dates and statutes. Is any part of the Statute of Frauds law with us and if so, how was it introduced?

9. Give some account of the different epochs in the growth of Law, the nature of Law in each, and the importance of early codes? Describe the great agencies in the amelioration of Law—particularly of Roman Law.

10. What was the *jus gentium* of earlier and later Roman Law, how was it formed, and point out some of its influence on Roman jurisprudence and in modern times?

11. Give an historic account of the development of the law of contract, and describe, in order of time, the different *contractus nominati*. What are the *contractus innominati?*

12. What was an *obligatio naturalis*, and what efficacy, if any, had it in Roman Law? What in our Law?

13. How do you account for the superiority of Roman Law?

N.B.—The first 10 questions for ordinary, all for honors.

THIRD YEAR.

CRIMINAL LAW.

Examiner.....MR. ARCHIBALD.

1. Define a crime; and give the distinction between crimes and private wrongs.

2. State the rules of law with regard to the responsibility of married women for criminal offences.

3. What is the scope of the maxim—"*Malitia supplet ætatem;*" and what exceptions are there to this rule?

4. What are the different kinds of dementia? and state the effect of each as regards responsibility for criminal actions.

5. What is the distinction between an accessory before the fact, and a principal in the second degree?

6. Define murder and manslaughter; and what is the distinction between them?

7. Define *malitia*, as used in criminal law.

8. Give a rule limiting the Admiralty jurisdiction in bays and the mouths of rivers.

9. What is counterfeiting; and to what class of offences does it belong?

10. Define burglary; and show particularly in what places it may be committed; and point out any changes in the law relating to it.

11. How many peremptory challenges are allowed to the prisoner in the different classes of crimes?

12. Are all offences bailable; and how may bail be obtained in the different classes of offences?

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1. How can a minor enforce his right before our courts.

2. Under what conditions can a public officer be sued for damages by reason of any act done by him in the exercise of his functions?

3. What must a fiat for a writ of summons contain?

4. How do you describe a corporate body in a writ of summons?

5. In how many different ways can you summon before our courts a defendant residing in Nova Scotia, and what are the formalities to be observed in so doing?

6. Suppose a demand of plea be served upon a defendant on a Thursday, on what day can you foreclose him from pleading?

7. How many kinds of preliminary exceptions are there; give the natur- of each, and state when they can be pleaded?

8. What is a demurrer? Give an example.

9. In what cases can a plaintiff make an incidental demand?

10. What is the effect of neglecting to answer interrogatories upon articulated facts; and which party bears the expense of them?

11. In the case of a defendant being sued on a promissory note, the signature to which has been forged, can he oblige the plaintiff to prove the genuineness of the note, if so, how and when is it done?

12. Can a witness be examined in a cause before it is inscribed for proof, if so, how and under what circumstances?

FACULTY OF MEDICINE.

M.D., C.M., PRIMARY EXAMINATION.

ELEMENTARY BOTANY.

SATURDAY, DECEMBER 11TH:—MORNING 9 TO 12.

Examiner.....J. W. DAWSON, LL.D., F.R.S.

1. Explain the terms Primordial Utricle, Parenchyma, Protoplasm, as used in Botany.

2. What are the functions of the Nucleus in a living cell?

3. Explain the movements of the Sap in plants.

4. Describe the appearance under the microscope of Raphides, Spiral Vessels, and Disc-bearing Wood-cells.

5. Describe the structures in the bark of an Exogen.

6. Describe fully the anatomy of the leaf.

7. Explain the terms Alternate, Opposite, Tristichous and Pentastichous, as applied to leaves.

8 What are the uses of Albumen and Starch and Chlorophyll in the cell-sap of plants.

9. Describe shortly the parts and structures denoted by the following terms:—

(*a*) Spine,
(*b*) Aerial Root,
(*c*) Phyllodium,
(*d*) Cambium,
(*e*) Stipule,
(*f*) Rhizoma.

10. Give examples of Phænogams, Cryptogams, Exogens and Endogens, properly arranged.

BOTANY.

SATURDAY, MARCH 11TH:—MORNING, 9 TO 12.

Examiner, ...J. W. DAWSON, LL.D., F.R.S., &c.

1. State the nature and manner of assimilation of the Atmospheric food of Plants.

2. What are the relations of Phosphates, Potash and Lime, to the growing plant?

3. Explain the structure and functions of the Stamen and Pistil.

4. Explain the terms Coma, Pappus, Sporangium, Achenium, Bract, Sepal.

5. Explain Coalescence and Adnation of the parts of the flower, with examples.

6. State the principal differences between the fertilization of a Fern or Moss, and that of a Phænogam.

7. Define the classes of the Vegetable Kingdom, and give an example of each.

8. Describe the parts of an Exalbuminous Dicotyledonous Seed, and how they correspond with those of the ovule.

9. Describe the principal forms of Indeterminate Inflorescence.

10. In what Natural Families do we find Siliques, Didynamous Stamens, Labiate Corollas, or Pappus-bearing Achenes? Describe one of these structures.

11. State the characters of any Canadian Exogenous Order, with examples.

12. Describe the specimens exhibited.

PRACTICAL CHEMISTRY.

EXAMINATION FOR HONOURS.

1. What metals may be in a solution which gives no precipitate with *H.cl*, or with *Hcl*, and $H_2\ S$ or with $N\ H_3\ H\ O$ in excess and $(N\ H_4)_2\ S$, and how would you proceed to prove their presence and identify each?

2. Take the specific gravity of solutions marked *A* and *B*.

3. Determine what acids and bases are present in solution *C*, and detail process of separation and identification.

MATERIA MEDICA.

SATURDAY, MARCH 18TH:—MORNING, 10 TO 11.30.

Examiner,..... PROFESSOR WRIGHT, M.D., L.R.C.S.E.

1. How is Beberiæ Sulphas made, and what are its impurities?

2. Write a short account of Nitrite of Amyl.

3. Describe the best and worst sorts of Opium.

4. Relate the actions of Hyoscyamia and of Sparteia.

5. Give the composition and uses of the Ointments containing Mercury.

6. State the doses of the chief Tonic preparations.

CHEMISTRY.

SATURDAY, MARCH 18TH:—MORNING, 11.30 TO 1.

Examiner,.....PROFESSOR R. CRAIK, M.D.

1. Describe Boyle's or Mariotte's law of gases, and explain the principles involved in the construction and in the variations of the ordinary mercurial barometer.

2. Describe the laws of (1) Definite Proportions, (2) Multiple Proportions, and (3) Equivalent Proportions, giving examples to illustrate each of them.

3. Describe the nature and origin of the principal foreign substances found in rain water, spring water and river water; and explain the natural process of purification which river water undergoes and how far it may thus be rendered safe for domestic purposes.

4. Describe the modes of production, the uses and the physical and chemical properties of (1) Sulphur Dioxide and (2) Sulphuretted Hydrogen.

5. What are the principal tests for (1) Sulphuric Acid (2) Hydrochloric Acid and (3) Hydrocyanic Acid?

6. Write a formula for one of each of the following substances, (1) a saturated hydrocarbon, (2) a monatomic and a triatomic alcohol, (3) a haloid ether, (4) an ethereal salt, and (5) a primary monamine.

INSTITUTES OF MEDICINE.

SATURDAY, MARCH 18TH :—AFTERNOON, 3 TO 4.30.

Examiners..... { PROFESSOR DRAKE, M.D. / PROFESSOR OSLER, M.D.

1. Describe the forms of blood corpuscles in the vertebrate series of Animals.

2. Describe the structure of Arteries, and the use they subserve in the Circulation.

3. Explain the mechanism (nervous and muscular) of Respiration.

4. Enumerate the different digestive fluids, and state briefly the action of each upon the constituents of the food.

5. State the functions of the grey matter and white columns of the Spinal Cord, and the effect of section of one lateral half in the dorsal region.

6. Name the constituents of the Ovum. Sketch briefly its development until the formation of the Chorion.

ANATOMY.

SATURDAY, MARCH 18TH :—4.30 TO 6 P.M.

Examiner,.....PROFESSOR SCOTT, M.D.

1. Describe the Diaphragm. Give its origin, insertion, relations and openings. Also state what passes through the Diaphragm.

2. Name the Muscles of the Anterior Tibial region; give their origins and insertions. What are the relations of the Anterior Tibial artery and nerve in their course through this region?

3. Describe the Cœliac Axis; give its origin, relations, branches and their inosculations.

4. How many centres of ossification does the Sphenoid Bone commence by? What are its articulations? Name the muscles that are attached to the bone, and also the foramina, and what passes through them.

5. What are the relations and branches of the Arch of the Aorta?

6. What nerves form the Brachial Plexus? What are its relations and what branches are given off from it?

M.D. C.M. FINAL EXAMINATION.

THEORY AND PRACTICE OF MEDICINE.

TUESDAY, MARCH 21ST:—MORNING 10 TO 11.30.

Examiner,.....PROFESSOR HOWARD, M.D., L.R.C.S E.

1. Give the characters of the eruption and the day of its appearing in Variola, Scarlatina, Morbilli, Typhoid and Typhus Fever, and name the special lesions met with in Typhoid, Cerebro-Spinal and Intermittent Fever respectively.

2. Sketch the diagnostic characters of Capillary Bronchitis, Acute lobar Pneumonia and Chronic Pulmonary Phthisis in the stage of deposition.

3. Describe the treatment of severe Pharyngeal Diphtheria, of Acute Peritonitis, and of Scarlatinal Dropsy.

4. Describe the Morbid Anatomy of Pulmonary Emphysema, Tuberculous Meningitis, and of Embolism of the Brain.

5. Enumerate the pathological conditions that produce Ascites, Icterus, and obstruction of the Bowels respectively, and underline the more frequent.

6. Point out the diagnosis between Unemic Coma and Cerebral Hæmorrhage, and sketch the treatment of each.

MIDWIFERY.

TUESDAY, MARCH 21ST:—MORNING, 11.30 TO 1.

Examiner, ...PROFESSOR MCCALLUM, M.D., M.R.C.S.L.

1. What are the indications of albuminuria during pregnancy; to what serious results may this condition give rise at the time of labor; and how may these results best be prevented, and when they occur how best relieved?

2. Mention the cause of Floodings that occur between the birth of the child and the expulsion of the placenta, and describe the symptoms and management of each variety.

3. Give in full the circumstances which would justify you in completing delivery by version of the child, and describe the different methods of performing that operation.

4. Mention the Oxytocic remedies that are employed in the practice of Midwifery and describe their mode of action—their effects on the mother and child, the conditions which demand their administration, and those which contra-indicate their use.

5. Describe the Female Pelvis, and mention the peculiarities in the form and arrangements of its parts which adapt it for the conditions of pregnancy and parturition.

6. What conditions of the Fœtus may interfere with the natural progress of labor? How are these separate conditions recognized, and by what means may the difficulties which they present be overcome?

PRINCIPLES AND PRACTICE OF SURGERY.

TUESDAY, MARCH 21ST:—AFTERNOON, 3 TO 4.30.

Examiner,..... ..... PROFESSOR G. E. FENWICK, M.D.

1. What do you understand by an impacted fracture; what bones are specially liable to this form of injury?

2. Mention the principal forms of dislocation of the coxo-femoral articulation. Give the symptoms in each, and the methods adopted for their reduction.

3. Describe the position of the testicle in Hydrocele, what circumstances will lead to a change in position of that organ in this disease.

4. Where does stricture of the urethra most frequently occur. Describe the probable results of neglected stricture, and the various methods adopted by the Surgeon for its relief.

5. What are hæmorrhoids, how many kinds are there, describe the various means of treatment for their relief.

6. Mention the complications that may occur in scalp wounds, and state how you would treat a wound of the scalp.

MEDICAL JURISPRUDENCE.

TUESDAY, MARCH 21ST:—AFTERNOON, 4.30 TO 6.

Examiner,.....PROFESSOR WILLIAM GARDNER, M.D.

1. Describe the various ways in which a person whose body is found in the water may have come to his death. What are the signs of death by drowning (apnea) and by what conditions or circumstances is their distinctness affected?

2. What are the various consequences which may result from a blow on the head?

3. What are the duties required of the medical jurist in cases of rape?

4. Describe the mode of death in hanging, strangulation, and suffocation respectively.

5. What is the general rule which must be observed in the examination of the substances expelled in cases of abortion? From what other substances is it necessary to distinguish the products of conception, and what are the points of difference?

6. Define the terms hallucination, illusion, delusion, delirium, incoherence.

CLINICAL MEDICINE.

Examiner,.....PROFESSOR GEORGE ROSS, A.M., M.D.

This examination was conducted at the bedside in the wards of the Montreal General Hospital—half an hour being allowed for each candidate. Ample material was afforded, both by cases in the wards and those selected from the out-door department, including, amongst many others, examples of the following diseases:—Valvular diseases, Thoracic Aneurisms, Phthisis, Asthma, Emphysema, Bronchitis, Ascites, Jaundice, Bright's disease, Rheumatism, Typhoid Fever, Diphtheria, Tonsillitis, Hemiplegia, Paraplegia, Locomotor Ataxia, &c., &c.

Candidates were practically examined upon the physical diagnosis of lung and heart, abdominal and other affections, being called upon to examine with stethoscope, &c., and describe the various physical signs thus met with and their significance. Examinations of specimens of urine were also called for. Various exanthemata, with characteristic rashes, were also submitted, and a diagnosis asked for. Thus several examples of medical disease were exhibited to each candidate, and a test afforded of the practical knowledge he possessed for their recognition. After a case had been examined and a diagnosis made, questions suggested thereby were put concerning any relevant matters, such as the various kinds of treatment recommended, its complications, peculiarities or sequelæ. Practical dictating of suitable prescriptions was also included.

EXAMINATION FOR SCHOOL CERTIFICATE AND ASSOCIATE IN ARTS, 1876.

PRELIMINARY SUBJECTS.

ENGLISH GRAMMAR.

THURSDAY, MAY 25TH:—MORNING, 9 to 12.

Examiners,..... { VEN. ARCHDEACON LEACH, D.C.L.
J. CLARK MURRAY, LL.D.

1. (*a*) Which are the personal and which the relative pronouns? (*b*) Mention the peculiarity in the use of "what."

2. (*a*) Which are the three varieties of the intransitive verb? (*b*) What are impersonal verbs?

3. Give the definitions of copulative and disjunctive conjunctions.

4. Give the general rule for the possessive cases and the exceptions.

5. Mention the three classes of irregular verbs, with examples of each class.

6. Give the substance of the remarks on "The sources of English words."

7. What do the primary elements of sentences consist of?—also, those elements expanded in the second degree and the third?

8. In what way do intransitive verbs often require completion?

9. Give examples of the Noun Sentence, the Adjective Sentence, and the Adverbial Sentence.

10. Give the rules for Punctuation.

11. Analyse the following sentence according to schemes II. and III. :—

"Silent, and in face
"Confounded, long they sat, as struck en mute,
"Till Adam, though not less than Eve abashed,
"At length gave utterance to these words constrained."

GEOGRAPHY.

THURSDAY, MAY 25TH :—AFTERNOON, 2 TO 4.

Examiners ..... { VEN. ARCHDEACON LEACH, D.C.L.
J. CLARK MURRAY, LL.D.

1. Name the four Continents, stating which are situated in the Eastern Hemisphere, which in the Western.

2. Describe the position of each of the following ranges of mountains :—the Alps, the Apennines, the Pyrenees, Caucasus, the Ural Mountains, the Himalayas, the Andes, the Rocky Mountains.

3. Name the country of which each of the following cities is the capital :—Paris, Washington, Madrid, Rome, Ottawa, Berlin, Vienna, Edinburgh, Dublin, Pekin, Constantinople, St. Petersburg.

4. Name the country through which mainly each of the following rivers flows, and the sea into which each empties :—the Ganges, the Rhine, the Rhone, the Yang-tse-Kiang, the Mississippi, the Amazon, the Indus, the Nile, the Danube, the Loire, the Tiber, the Hoang-Ho.

5. In what direction does the St. Lawrence flow?

6. Name the principal rivers which flow into the St. Lawrence on its North shore.

7. Describe the position of each of the following islands :—Cape Breton, Prince Edward Island, Anticosti, Vancouver Island, the Manitoulin Islands.

8. (*a*) Where does the boundary between Canada and the United States leave the St. Lawrence? (*b*) What parallel of latitude does it then follow? (*c*) Does it follow that parallel the whole way to the ocean?

9. Name the Province of British North America in which each of the following cities is situated :—Ottawa, St. John, Hamilton, Montreal, St. John's, Kingston.

10. Draw a map exhibiting the relative positions of the great North American Lakes.

GOSPELS.

THURSDAY, MAY 25TH:—AFTERNOON, 4 TO 5.

Examiners..... { VEN. ARCHDEACON LEACH, D.C.L.
J. CLARK MURRAY, LL.D.

1. Relate the circumstances which led to Jesus being born at Bethlehem.

2. In the reign of what Roman Emperor, and in what year of his reign, did John the Baptist appear in the country about Jordan preaching repentance?

3. Relate the circumstances of John the Baptist's death.

4. Relate the occasion of the first miracle of Jesus.

5. On what different occasions is Jesus recorded to have raised the dead?

6. (*a*) Who was the ruler of the Jews that came to consult Jesus by night? (*b*) On what other occasion did he show an interest in Jesus?

7. "He left Judea, and departed again into Galilee. And he must needs go through Samaria" (John 4, 3-4). Explain the geography implied in this passage.

8. State the first and the last words recorded to have been spoken by Jesus, mentioning the occasions on which they were severally uttered.

N.B. Candidates are not required to be examined on this subject, if their parents or guardians object.

BRITISH AND CANADIAN HISTORY.

FRIDAY, MAY 26TH:—MORNING, 9 TO 12.

Examiners..... { VEN. ARCHDEACON LEACH, D.C.L.
J. CLARK MURRAY, LL.D.

1. Give some account of Richard I. after he had left the Holy Land.

2. What measures were passed by the Mad Parliament?

3. How was the Civil war in Henry III.'s time brought to a close?

4. Upon what grounds did Edward I. justify his interference in the Scottish succession?

5. Give the latter part of the history of Edward II.

6. Mention some of the chief events, political and social, that mark the reign of Edward III.

7. Mention the Sovereigns of the Houses of Lancaster and of York.

8. Give some account of the death and of the character of Richard III.

9. What was the chief article in the Six Articles of Henry VIII.?—the principal historical fact of his reign?

10. Which were the principal Indian tribes that in early times inhabited Canada?

11. How did the Island of Montreal become the property of the order of the St. Sulpicians?

12. Give an account of the invasion of Canada by the Americans in 1775.

13. How and when did Canada come into the possession of the British?

14. What part did the French in Canada take during the American war?

ARITHMETIC.

FRIDAY, MAY 26TH :—AFTERNOON, 2 TO 5.

Examiners..... { REV. J. A. LOBLEY, M.A. / REV. A. N. MCQUARRIE, B.A.

1. Write the following tables :—viz., Avoirdupois, Apothecaries', Lineal, Square, Cloth and Dry measure, and state the use of each.

2. Give the rule for performing Division, when the divisor is a composite number, and illustrate it in the following example :—

How many times is fifty-six contained in *seventy-nine* times *four hundred and eleven thousand six hundred and nine*? Explain particularly the process of finding the *true remainder*.

3. In 61479867 square inches, how many acres, roods, &c. Explain the process.

4. Define Measure, Common Measure, Multiple and Common Multiple, and illustrate each by an example.

5. Find the L.C.M. of 8, 21, 63, 40, 160, 240, 300. Explain the process.

6. Define and illustrate by examples, Proper, Improper, Mixed, Simple, Compound, and Complex fraction.

7. Simplify $\dfrac{5\frac{2}{7} \div 7\frac{2}{5}}{2\frac{3}{8} - 1\frac{4}{7}}$ of $\dfrac{2\frac{1}{4} \times 8\frac{1}{3}}{4\frac{1}{9} \div (\frac{1}{8} - \frac{1}{9})}$

8. Extract the square root of 445.336609, and explain the process.

9. At what rate per cent., Simple Interest, will the interest of $816 amount to $346.80 in 5 years ?

10. If 15 cows or 26 sheep can graze a field of 5 acres in 11 days, how many days ought a similar field of 18 acres to serve 33 cows and 22 sheep.

11. There are 4 casks of different sizes. The 1st is filled with liquid, the others are empty. The 2nd cask is filled from the 1st and $\frac{4}{7}$ths of the original liquid in the first remains. The 3rd is then filled from the 2nd, and $\frac{1}{4}$th of the liquid in the 2nd remains. The liquid in the third is then poured into the 4th and fills $\frac{9}{16}$ths of it. Had the 3rd and 4th casks been filled from the contents of the 1st, 15 gallons would still have remained in the 1st. Find the capacity of each cask.

OPTIONAL SUBJECTS.

LATIN.

MONDAY, MAY 29TH :—MORNING, 9 TO 12.

Examiners,..... { REV. GEORGE CORNISH, LL.D. / REV. GEORGE WEIR, M.A.

1. Translate :—

(A) Caesar, De Bell. Gall., Book I. :—

Ad haec Ariovistus respondit: Jus esse belli ut qui vicissent iis qui vicissent quemadmodum vellent imperarent: item populum Romanum victis non ad alterius praescriptum sed ad suum arbitrium imperare consuesse. Si ipse populo Romano non praescriberet quemadmodum suo jure uteretur, non oportere sese a populo Romano in suo jure impediri. Aeduos sibi, quoniam belli fortunam tentassent et armis congressi ac superati essent, stipendiarios esse factos. Magnam Caesarem injuriam facere qui suo adventu vectigalia sibi deteriora faceret. Aeduis se obsides redditurum non esse, neque his neque eorum sociis injuria bellum illaturum, si in eo manerent quod convenisset, stipendiumque quotannis penderent: si id non fecissent, longe iis fraternum nomen populi Romani abfuturum. Quod sibi Caesar denuntiaret se Aeduorum injurias non neglecturum, neminem secum sine

sua pernicie contendisse. Quum vellet congrederetur: intellecturum quid invicti Germani, exercitatissimi in armis, qui inter annos XIV tectum non subissent, virtute possent.

2. (*a*) What is the form of speech from "Jus" to the end of the extract?

(*b*) On what does the same depend?

3. In what form are the principal and subordinate clauses respectively put in Indirect Narration?

4. Turn *congrederetur*, and *intellecturum* into the Direct.

5. Which is the direct and which is the indirect object after *praescriberet?*

6. Distinguish between pendĕrent and pendērent, and say which is used in the above extract.

7. Parse and construe the following words in the above extract, conjugating the verbs, and indicating the declensions of the nouns and adjectives:—(1) Jus. (2) Iis. (3) Victis. (4) Uteretur. (5) Vectigalia. (6) Deteriora. (7) Illaturum. (8) Neglectūrum. (9) Vellet. (10) Congrederetur. (11) Armis. (12) Tectum. (13) Subissent. (14) Virtute.

8. (a) What kind of clause is *quemadmodum suo jure uteretur?* (*b*) Why is *uteretur* Subjunctive?

9. Translate:—

(B) Horace, Odes I.:—

Quis desiderio sit pudor ant modus
Tam cari capitis? Praecipe lugubres
Cantus, *Melpomene* cui liquidam *pater*
  Vocem cum cithara dedit.
Ergo Quinctilium perpetuus sopor
Urget! cui Pudor et Justitiae soror
Incorrupta Fides nudaque Veritas
  Quando ullum inveniet parem?
Multis ille bonis flebilis occidit,
Nulli flebilior quam tibi, Virgili.
Tu frustra pius heu non ita creditum
  Poscis Quinctilium deos.
Quodsi *Tūreïcio* blandius *Orpheo*
Auditam moderere arboribus fidem,
Non vanae redeat sanguis imagini,
  Quam *virga* semel *horrida*
Non lenis precibus fata recludere
Nigro compulerit Mercurius *gregi.*
Durum: sed levius fit patientia
  Quidquid corrigere est nefas.

(C) Virgil, Aeneid, I.:—

At puer Ascanius, cui nunc cognomen Iulo
Additur,—Ilus erat, dum res stetit *Ilia* regno—
Triginta magnos volvendis mensibus orbis
Imperio explebit, regnumque ab sede Lavini
Transferet, et *longam* multa vi muniet *Albam*.
Hic iam ter centum totos regnabitur annos
Gente sub Hectorea, donec regina sacerdos
Marte gravis geminam partu dabit Ilia prolem.
Inde lupae fulvo nutricis tegmine laetus
Romulus excipiet gentem, et *Mavortia* condet
Moenia Romanosque suo de nomine dicet.
His ego nec metas rerum nec tempora pono;
Imperium sine fine dedi. Quin aspera Iuno,
Quae mare nunc terrasque metu caelumque fatigat,
Consilia in melius referet, mecumque fovebit
Romanos, rerum dominos, gentemque togatam.
Sic placitum. Veniet *lustris labentibus* aetas,
Cum domus Assaraci Phthiam clarasque Mycenas
Servitio premet ac victis dominabitur *Argis*.
Nascetur pulchra Troianus origine Caesar,
Imperium Oceano, famam qui terminet astris.
Iulius, a magno demissum nomen Iulo.

10. (*a*) Write short explanatory notes on the passages italicised. (*b*) Name the metre and scan the first stanza of ext. (B).

11. (*a*) Distinguish between occīdo and occĭdo (conjugate and give the derivation), and (*b*) Consulo te, consulo tibi, consulo in te.

12. Translate into Latin:—(1) Who destroyed Corinth? (2) Was Corinth destroyed? (3) It is well known who destroyed Corinth. (4) The boy could not tell when Corinth was destroyed. (5) They asked me if I knew how the enemy had fought. (6) Horatius cut down the bridge to prevent the enemy from crossing the Tiber. (7) I shall show you in order that you may know better. (8) He persuaded them to go. (9) He persuaded them that I had gone. (10) We have shown how unfortunate they were.

GREEK.

TUESDAY, MAY 30TH:—MORNING, 9 TO 12.

Examiners, { REV. GEORGE CORNISH, LL.D.
{ REV. GEORGE WEIR, M.A.

1. Translate, Xenophon, Anabasis, Book I. :—

(A) Ἀρίστιππος δὲ ὁ Θετταλὸς ξένος ὢν ἐτύγχανεν αὐτῷ, καὶ πιεζόμενος ὑπὸ τῶν οἰκοι ἀντιστασιωτῶν ἐρχεται πρὸς τὸν Κῦρον καὶ αἰτεῖ αὐτὸν εἰς δισχιλίους ξένους καὶ τριῶν μηνῶν μισθόν, ὡς οὕτω περιγενόμενος ἂν τῶν ἀντιστασιωτῶν. ὁ δὲ Κῦρος δίδωσιν αὐτῷ εἰς τετρακισχιλίους καὶ ἓξ μηνῶν μισθόν, καὶ δεῖται αὐτοῦ μὴ πρόσθεν καταλῦσαι πρὸς τοὺς ἀντιστασιώτας πρὶν ἂν αὐτῷ συμβουλεύσηται. οὕτω δὲ αὖ τὸ ἐν Θετταλίᾳ ἐλάνθανεν αὐτῷ τρεφόμενον στράτευμα. Πρόξενον δὲ τὸν Βοιώτιον ξένον ὄντα αὐτῷ ἐκέλευσε λαβόντα ἀνδρας ὅτι πλείστους παραγενέσθαι, ὡς εἰς Πεισίδας βουλόμενος στρατεύεσθαι, ὡς πράγματα παρεχόντων τῶν Πεισιδῶν τῇ ἑαυτοῦ χώρᾳ. Σοφαίνετον δὲ τὸν Στυμφάλιον καὶ Σωκράτην τὸν Ἀχαιόν, ξένους ὄντας καὶ τούτους, ἐκέλευσεν ἀνδρας λαβόντας ἐλθεῖν ὅτι πλείστους, ὡς πολεμήσων Τισσαφέρνει σὺν τοῖς φυγάσι τῶν Μιλησίων. καὶ ἐποίουν οὕτως οὗτοι.

(B) Καὶ πρῶτον μὲν ἦν αὐτῷ πόλεμος πρὸς Πεισίδας καὶ Μυσούς· στρατευόμενος οὖν καὶ αὐτὸς εἰς ταύτας τὰς χώρας οὓς ἑώρα ἐθέλοντας κινδυνεύειν, τούτους καὶ ἄρχοντας ἐποίει ἧς κατεστρέφετο χώρας, ἔπειτα δὲ καὶ ἄλλοις δώροις ἐτίμα· ὥστε φαίνεσθαι τοὺς μὲν ἀγαθοὺς εὐδαιμονεστάτους, τοὺς δὲ κακοὺς δούλους τούτων ἀξιοῦσθαι εἶναι. τοιγαροῦν πολλὴ ἦν ἀφθονία αὐτῷ τῶν θελόντων κινδυνεύειν ὅπου τις οἴοιτο Κῦρον αἰσθήσεσθαι. εἰς γε μὴν δικαιοσύνην εἴ τις αὐτῷ φανερὸς γένοιτο ἐπιδείκνυσθαι βουλόμενος, περὶ παντὸς ἐποιεῖτο τούτους πλουσιωτέρους ποιεῖν τῶν ἑκ τοῦ ἀδίκου φιλοκερδούντων. καὶ γὰρ οὖν ἄλλα τε πολλὰ δικαίως αὐτῷ διεχειρίζετο καὶ στρατεύματι ἀληθινῷ ἐχρήσατο. καὶ γὰρ στρατηγοὶ καὶ λοχαγοὶ οὐ χρημάτων ἕνεκα πρὸς ἐκεῖνον ἔπλευσαν, ἀλλ' ἐπεὶ ἐγνωσαν κερδαλεώτερον εἶναι Κύρῳ καλῶς πειθάρχειν ἢ τὸ κατὰ μῆνα κέρδος· ἀλλὰ μὴν εἴ τίς γέ τι αὐτῷ προστάξαντι καλῶς ὑπηρετήσειεν, οὐδενὶ πωποτε ἀχαριστον εἶασε τὴν προθυμίαν. τοιγαροῦν κράτιστοι δὴ ὑπηρέται παντὸς ἔργου Κύρῳ ἐλέχθησαν γενέσθαι.

2. Name the date of the Anabasis and give the situation of the principal towns on the line of march from Sardis to Cunaxa. What were the Ἰωνικαὶ πόλεις.

3. (*a*) Construe the clause, Τοῦτο δ' αὖ οὕτω τρεφόμενον ἐλάνθανεν αὐτῷ τὸ στράτευμα. Express the difference in meaning between the expressions *τρεφόμενον ἐλάνθανεν* and *ἐτρέφετο λανθάνον*. (*b*) Explain the syntax of:—(1) *ὑστέρησε τῆς μάχης ἡμέρας πέντε*. (2) *τὸ βάθος ὀργυιαὶ τρεῖς*. (3) *πρόφασις ἦν αὐτῷ τοῦ ἀθροίζειν στράτευμα*. (4) *ὡς οὕτω περιγενόμενος ἂν τῶν ἀντιστασιωτῶν*.

4. Parse the following verbs:—*καταληψόμενον, καταγγεῖλαι, ἐπῆεσαν, διήλασε, ἐκπλαγεῖς, ἀπόφηναι, ἀναβᾶσι, εἶασε.*

5. (*a*) *Τὰ βασίλεια ἦσαν*:—point out the peculiarity of this construction, and give the explanation. (*b*) Give as exactly as you can the the meaning and force of the following particles, or combinations of particles, in ext. (B):—*οὖν, μέν, δέ, καὶ γὰρ οὖν, ἀλλὰ μήν.*

6. Translate, Homer, Iliad, Book I.:—

(C) *Τὸν δ' ἀρ' ὑπόδρα ἰδὼν προσέφη πόδας ὠκὺς Ἀχιλλεύς*
„Ὤμοι, ἀναιδείην ἐπιειμένε, κερδαλεόφρον,
πῶς τίς τοι πρόφρων ἔπεσιν πείθηται Ἀχαιῶν
ἢ ὁδὸν ἐλθέμεναι, ἢ ἀνδράσιν ἶφι μαχέσθαι;
οὐ γὰρ ἐγὼ Τρώων ἕνεκ' ἦλυθον αἰχμητάων
δεῦρο μαχησόμενος, ἐπεὶ οὔτι μοι αἴτιοι εἰσίν·
οὐ γὰρ πώποτ' ἐμὰς βοῦς ἤλασαν, οὐδὲ μέν ἵππους,
οὐδὲ ποτ' ἐν Φθίῃ ἐριβώλακι βωτιανείρῃ
καρπὸν ἐδηλήσαντ', ἐπεὶ ἦ μάλα πολλὰ μεταξὺ
οὔρεά τε σκιόεντα θάλασσά τε ἠχήεσσα·
ἀλλὰ σοί, ὦ μέγ' ἀναιδές, ἅμ' ἑσπόμεσθ', ὄφρα σὺ χαίρῃς,
τιμὴν ἀρνύμενοι Μενελάῳ σοί τε, κυνῶπα,
πρὸς Τρώων· τῶν οὔτι μετατρέπῃ οὐδ' ἀλεγίζεις·
καὶ δή μοι γέρας αὐτὸς ἀφαιρήσεσθαι ἀπειλεῖς,
ᾧ' ἐπὶ πόλλ' ἐμόγησα, δόσαν δέ μοι υἷες Ἀχαιῶν.

(D) *Ἦ, καὶ κυανέῃσιν ἐπ' ὀφρύσι νεῦσε Κρονίων·*
ἀμβρόσιαι δ' ἄρα χαῖται ἐπερρώσαντο ἄνακτος
κρατὸς ἀπ' ἀθανάτοιο· μέγαν δ' ἐλέλιξεν Ὄλυμπον.
Τὼ γ' ὣς βουλεύσαντε διέτμαγεν· ἡ μὲν ἔπειτα
εἰς ἅλα ἅλτο βαθεῖαν ἀπ' αἰγλήεντος Ὀλύμπου,
Ζεὺς δὲ ἐὸν πρὸς δῶμα. θεοὶ δ' ἅμα πάντες ἀνέσταν
ἐξ ἑδρέων, σφοῦ πατρὸς ἐναντίον· οὐδέ τις ἔτλη
μεῖναι ἐπερχόμενον, ἀλλ' ἀντίοι ἔσταν ἅπαντες.
Ὣς ὁ μὲν ἔνθα καθέζετ' ἐπὶ θρόνου· οὐδέ μιν Ἥρη
ἠγνοίησεν ἰδοῦσ' ὅτι οἱ συμφράσσατο βουλὰς
ἀργυρόπεζα Θέτις, θυγάτηρ ἁλίοιο γέροντος.
αὐτίκα κερτομίοισι Δία Κρονίωνα προσηύδα.

7. Give the composition and derivation of:—*ζαθέην, γλαυκῶπις, ἁλίοιο, παλίλλογα, ἐκηβόλος, ἑλικῶπις, οἰνόβαρής, δημοβόρος, δικασπόλος, ἀνδροφόνος.*

8. (*a*) What is the Digamma? Give six words that possessed it, and illustrate by the cognate Latin words. (*b*) Turn the following into Attic:—*νηυσί, θεοῖο, κοίλῃς, ἔσταν, ἀνέραι, τράφεν, ἐμμεναι, ἐπιτέλλεο, ἐθέλῃσιν, δικαζέμεν.* (*c*) Explain the Homeric use of the *Article*. (*d*) Scan the first four verses of ext. (C).

9. (*a*) Write down tht Nom. Sing. and Plu. of the following nouns: —*φυλακάς, ἀνδρας, θρᾳξί, μηνῶν, κέραος.* (*b*) Explain the formation of: —*οἶκοι, οἰκοῦεν, οἴκαδε, μείζους.* (*c*) Decline the following words:—*πολίτης, κόλαξ, οἶκος, σοφός, πρᾶγμα.*

10. Given the root *πλεκ-*, form the following:—(*a*) The 1st Sing., Present, Future, and Aorist, Indicative Active. (*b*) The 1st Plural, Present, Perfect, and Future, Indicative Middle, and the First Aorist Indicative Passive. (*c*) The Present, Perfect, and Aorist Inf. Active, and the Future Inf. Middle.

FRENCH.

MONDAY, MAY 29TH:—AFTERNOON, 3 TO 5.

Examiner,.....P. J. DAREY, M.A., B.C.L.

1 Translate into English:

Harpagon. Allons, venez ça tous, que je vous distribue mes ordres pour ce soir et règle à chacun son emploi. Approchez, dame Claude; commençons par vous. Bon, vous voilà les armes à la main. Je vous commets au soin de nettoyer partout; et surtout, prenez garde de frotter les meubles trop fort, de peur de les user. Outre cela, je vous constitue, pendant le souper, au gouvernement des bouteilles; et s'il s'en écarte quelqu'une, ou s'il se casse quelque chose, je m'en prendrai à vous, et vous le rabattrai sur vos gages. Vous Brindavoine, et vous La Merluche, je vous établis dans la charge de rincer les verres, et de donner à boire, mais seulement lorsque l'on aura soif, et non pas selon la coutume de certains impertinents laquais qui viennent provoquer les gens et les faire aviser de boire lorsqu'on n'y songe pas. Attendez qu'on vous en demande plus d'une fois, et vous ressouvenez de porter toujours beaucoup d'eau.

MOLIERE, l'*Avare*.

2. Parse the first sentence of the above extract.

3. Give equivalent French expressions that are more common than the following ones, in the above extract: que je vous *distribue* mes ordres vous voilà les *armes* à la main (quelles armes?); je vous *commets* au soin; je vous *constitue au gouvernement* des bouteilles; *provoquer* les gens. How do you call the expression *je m'en prendrai à vous*? Give two similar expressions.

4. Translate the following expressions from Molière: Sors vite, que je ne t'assomme; maître juré filou; des ladres; tout de bon; un bon parti. C'est une fort mauvaise politique que de se faire céler aux créanciers. Il est bon de les payer de quelque chose. Apportez un fauteuil.

5. Translate, and write the feminine of the adjectives, *malin, public, frais, sec, digne, triste, vieux, long, ancien, amer.*

6. Translate, write the plural, and give the rules to make the plural of the nouns, *licou, hibou, croi , joujou, lis, régal, fils, couteau, nez bail.*

7. What difference is there between *celui-ci* et *ceci?* Illustrate your answer by two examples.

8. When a pronoun is the subject of a verb where do you place it? Give two examples. When it is the object where do you place it? When there are two pronouns object, where do you place them? In what order? Give four examples.

9. Translate the following sentence: *They have seen and spoken to each other.* Explain fully how the participles *seen* and *spoken* ought to be written.

10. Explain when you translate the *perfect* in English by the *Imperfect* in French and when by the *Preterite definite.* Give two examples.

11. Write in full the *Indicative present*, the *Preterite definite* and the *Present subjunctive* of *Acquérir, croire, croître* and *naitre.*

12. Translate into French:

There are but two kinds of books in the world: such as are designed to instruct, and such as are intended to amuse; and when a book blends amusement with instruction, it is not for the sake of the amusement, but for the sake of instruction, just as you mix sugar with your medicine, not for the sake of the sugar, but to make the medicine go down. It is our privilege, within certain bounds, to make books subserve both these ends. There is no way in which one can be so easily and quickly instructed or amused as by the reading of books.

JOHN TODD, *the Daughter at School.*

GERMAN.

TUESDAY, MAY 30TH:—AFTERNOON, 2 TO 5.

Examiner,.....C. F. A. MARKGRAF, M.A

I. Translate into English:—

A. Oft ſieht die Wahrheit wie eine Lüge aus. Das erfuhr ein Fremder, der vor einigen Jahren mit einem Schiff aus Weſtindien an den Küſten der Oſtſee ankam. Damals war der ruſſiſche Kaiſer, Alexander I., bei dem König von Preußen, Friedrich Wilhelm III., auf Beſuch. Beide Monarchen ſtanden in gewöhnlicher Kleidung, ohne Begleitung, Hand in Hand, als zwei recht gute Freunde, bei einander am Ufer. So etwas ſieht man nicht alle Tage. Der Fremde dachte auch nicht daran, ſondern ging ganz treuherzig auf ſie zu, meinte, es ſeien zwei Kaufleute oder andere Herren aus der Gegend, und

fing ein Gespräch mit ihnen an ganz begierig allerlei Neues zu hören, das seit seiner Abwesenheit sich zugetragen habe. Endlich, da die beiden Monarchen sich leutselig mit ihm unterhielten, fand er Veranlassung, den Einen auf eine höfliche Art zu fragen, wer er sei. „Ich bin der König von Preußen," sagte der Eine. Das kam nun dem fremden Ankömmling schon ein wenig sonderbar vor. Doch dachte er „es ist möglich," und machte vor dem Könige eine ehrerbietige Verbeugung.

Fragment from „Der Fremdling in Memel" by Hebel.

B. Einst zog nach diesem Schlosse ein edles Sängerpaar,
Der Ein' in goldnen Locken; der Andre grau von Haar;
Der Alte mit der Harfe, der saß auf schmuckem Roß,
Es schritt ihm frisch zur Seite der blühende Genoß.

Der Alte sprach zum Jungen: „Nun sei bereit, mein Sohn!
Denk unsrer tiefsten Lieder, stimm an den vollsten Ton;
Nimm alle Kraft zusammen, die Lust und auch den Schmerz!
Es gilt uns heut zu rühren des Königs steinern Herz."

Schon stehn die beiden Sänger im hohen Säulensaal,
Und auf dem Throne sitzen der König und sein Gemahl;
Der König furchtbar prächtig wie blut'ger Nordlichtschein,
Die Königinn süß und milde, als blickte Vollmond drein.

Da schlug der Greis die Saiten, er schlug sie wundervoll,
Daß reicher, immer reicher der Klang zum Ohre schwoll,
Dann strömte himmlisch helle des Jünglings Stimme vor,
Des Alten Sang dazwischen wie dumpfer Geisterchor.

Fragment from „Des Sängers Fluch" by Uhland.

II. Grammar:—

1. Give the gender and meaning of Adler, Flügel, Kunst, Gebirge, Gast, Fluth, Bäumchen, Planet, Dorn, Gesang, Kloster, Insel, Falke, Amt, Freundschaft, Kapital, Strahl, Irrthum, Held, Admiral, Pflanze, Wald, Reich, Hausthüre. State also to which declension each of the above nouns belongs.

2. Decline in both numbers:—The good king; which young man (Mensch); our great joy; that deep valley (Thal, n.).

3. *a.* What nouns cannot be used in the Plural? *b.* Write down *six* nouns, which have no Singular. *c.* Give the feminine derivatives of Graf, Nachbar, Prinz, Sachse, Maler, Löwe. *d.* State the difference in meaning between der Band and das Band, der Bauer and das Bauer, der Erbe and das Erbe, der Heide and die Heide, der Schild and das Schild, die Gesichter and die Gesichte.

4. Translate:—The life of Alcibiades; the works of Schiller; the

books of Charles and Emily's gloves; I admire Socrates; give the book to Frederick; I know Mr. K.; the rivers of Germany; the kingdom of Prussia; the month of May.

5. *a.* Give the degrees of comparison of arm, hart, ſtark, gut, lang, alt, weiſe, hoch, kurz. *b.* Der, die, das größte and am größten. Explain the use of these two forms of the Superlative.

6. *a.* Give the Pluperfect Indicative and the Imperfect Subjunctive, all persons, of haben, ſein, werden. *b.* Conjugate the verb lieben, giving the 1st Sing. and 2nd Plu. of all moods and tenses, both *active* and *passive*.

7. Parse the following forms of verbs, and give their Present Infinitives:—ſchlägſt, gäbe, blies, lies, fochten, ſchwandet, geſchloſſen, ſang, tritt, vergäßen, lag, geſtanden, nimm, verbirgſt, erſchrickt, begänne, wirbt, mißlungen.

8. State the case (or cases) governed by each of the following prepositions:—aus, durch, für, während, um, zwiſchen, ohne, ſeit, gegenüber, unter, an, über, wegen.

III. Translate into English:—

Der Kaufmann hat einen Brief von ſeinem Sohne in Europa erhalten; der Bote hat ihn dieſen Morgen gebracht. Die Vögel bauen ihre Neſter auf den Bäumen. Die Götter der Heiden waren ſehr zahlreich. Der Lehrer hat ſeine fleißigen Schüler gelobt. Ich kenne dieſe Herren nicht; wer ſind ſie? Es ſind Ruſſen. Viele Leute können weder leſen noch ſchreiben. Jene Schlöſſer gehören dem Fürſten N. Sind Ihre Neffen zu Hauſe? Nein; ſie ſind mit den Söhnen des Arztes zu dem Buchhändler gegangen; aber ſie müſſen bald nach Hauſe kommen. Heute ſind nur wenige Fremden hier; aber geſtern waren viele hier. Unſere beiden Töchter wohnen jetzt in der Stadt bei ihrer Tante. Mein Diener hat die Brieftaſche gefunden, die du vor einigen Tagen verloren haſt.

EUCLID.

WEDNESDAY, MAY 31ST:—MORNING, 9 TO 12.

Examiners,..... { REV. J. A. LOBLEY, B.A.
REV. A. N. MCQUARRIE, M.A.

1. Define, Point, Right Line, Right Angle, Circle, Equilateral Triangle, Isosceles Triangle, Square, and Parallel right lines.

2. The angles which one right line makes with another, on the same side of it, are either two right angles, or are together equal to two right angles.

3. If two triangles have two angles of the one equal to two angles of the other, each to each, and a side equal to a side, viz., either the sides adjacent to the equal angles in each or a side opposite to one of the equal angles in each, they shall have the remaining sides equal to the remaining sides, each to each, and the third angle of the one equal to the third angle of the other.

(*a*) In an isosceles triangle the perpendicular let fall from the vertex on the base bisects the base, the vertical angle, and the triangle.

4. If the square on one of the sides of a triangle be equal to the sum of the squares on the other two sides, the angle contained by these two sides is a right angle.

5. If a right line be divided into two equal and also into two unequal parts, the squares of the unequal parts are equal to double the squares of the half and of the line between the points of section.

(*a*). Give the Algebraical proof.

6. Make a square equal to a given rectilinear figure.

(*a*.) If the sides of a rectangle be 12 feet and 8 feet respectively, calculate the side of the equal square.

7. From a given point either without or upon the circumference, draw a right line touching a given circle.

(*a*). Draw a common tangent to two given circles.

8. The opposite angles of quadrilaterals in circles are together equal to two right angles.

9. If any point be taken outside a circle, and two straight lines be drawn from it, of which one cuts the circle and the other touches it, the rectangle contained by the whole divided line and its external segment between the point and the convex circumference, is equal to the square of the tangent line.

10. Describe a circle which shall pass through a given point, and touch a given line at a given point.

ALGEBRA.

WEDNESDAY, MAY 31 :—AFTERNOON, 2 TO 5.

Examiners, ... { REV. J. A. LOBLEY, M.A. / REV. A. N. MCQUARRIE, B.A.

1. Write the products of $(a^2 + ax - x^2)(a^2 - ax + x^2)$ and $(a + 2b - 3c - d)(a - 2b + 3c - d)$, and state the theorems involved.

2. Write the quotients of $x^4 - 81\,y^4$ *by* $x - 3\,y$

$x^{18} - y^{12}$ *by* $x^3 + y^2$,

and $x^3 - (y - z)^3$ *by* $x - y + z$, and state the rule which governs the signs of the quotients.

3. When is $x^n + y^n$ or $x^n - y^n$ divisible by $x + y$ or $x - y$? State the four theorems involved.

4. Resolve into elementary factors

$(x + y)^2 + 2\,(x^2 + xy) - 3\,(x^2 - y^2)$

and $a^4 - b^4 + (a^2 - b^2)^2 - 2\,a^4 + 2\,a^2\,b^2$.

5. Write the expansion of $(a - x)^5$

and $(1 - 2x + 3\,x^2 - 2\,x^3 + x^4)^2$.

6. Extract the square root of

$16\,x^4 - 16\,ab\,x^2 + 16\,b^2\,x^2 + 4\,a^2\,b^2 - 8\,ab^3 + 4\,b^4$, and explain the process.

7. Reduce to its simplest form

$$\frac{x^5 + 2\,x^4\,y - 3\,x^3\,y^2 + 6\,x^2\,y - 10\,xy^4 + 4\,y^5}{x^5 - 5\,x^4\,y + 6\,x^3\,y^2 - 6\,x^2\,y^3 + 8\,xy^4 + 8\,y^5}$$

8. Simplify $\left(1 - \frac{b^4}{a^4}\right) \div \left(\frac{a}{b} + \frac{b}{a}\right)$

and $\dfrac{\dfrac{a+x}{a-x} + \dfrac{a-x}{a+x}}{\dfrac{a+x}{a+x} - \dfrac{a-x}{a+x}}$

9. Define Equation and Identity, and illustrate by examples.

10. Solve the following equation:

$$\tfrac{1}{2}\,x - \frac{\frac{1}{3}\,(2x - 3) - \frac{1}{4}\,(3\,x - 1)}{\frac{1}{2}\,(x - 1)} = \tfrac{3}{2} \cdot \frac{x^2 - \frac{5}{3}\,x + 2}{3\,x - 2}$$

11. Two coaches start at the same time from York and London, a distance of 200 miles; the coach from York travelling at the rate of $9\frac{1}{2}$ miles an hour, the coach from London at $9\frac{1}{4}$; where will they meet, and in what time from starting?

NATURAL PHILOSOPHY.

FRIDAY, JUNE 2ND:—MORNING, 9 TO 12.

Examiners..... { REV. J. A. LOBLEY, B.A. / REV. A. N. MCQARRIE, M.A.

1. Explain what is meant by Inertia, and Impenetrability of Matter.

2. If two forces acting on a particle be represented in magnitude and direction by the sides of a parallelogram, prove that their resultant acts in the direction of its diagonal.

3. A rigid bar 18 inches in length is supported by a fulcrum 6 inches from one end. At the end of the shorter arm is suspended a weight of 10 lbs., and at the end of the longer a weight of 3 lbs. Find at what point a weight of 4 lbs. must be hung so as to produce equilibrium.

4. Find the centre of gravity of 3 equal heavy particles placed at the angular points of a triangle.

5. State and explain the Third Law of Motion.

6. If a particle be projected in a direction making equal angles with the horizontal and vertical and with a velocity of 50 ft. per second, find the height to which it will rise, the acceleration produced by gravity being 32.2 feet per second.

7. If two elastic balls of equal mass, moving in the same direction with velocities of 20 and 15 ft. per second respectively, impinge, find their velocities after impact, the modulus of elasticity bring $\frac{3}{4}$.

8. What is the characteristic property of a fluid? What is the Hydrostatic Paradox?

9. Prove that the common surface of two fluids which do not mix is a horizontal plane.

10. A cylindrical cup weighing 6 oz., of external radius $1\frac{1}{2}$ inches and height $4\frac{1}{2}$ inches, floats in water; find what additional weight must be placed in it that it may sink, the weight of a cubic foot of water being 1000 oz.

MENSURATION.

FRIDAY, JUNE 2ND:—MORNING, 9 TO 12.

Examiners..... { REV. J. A. LOBLEY, B.A. / REV. A. N. MCQARRIE, M.A.

1. Define a Trapezium, a Trapezoid, a Rhombus, a Lune, and Concentri Circles.

2. Find the area of a Triangle whose base is 2 feet 3 inches and perpendicular height 3 feet 6 inches. Give the reason of the process.

3. Find the radius of a circle which shall be equal in area to a triangle the lengths of whose sides are 15 inches, 12 inches and 9 inches respectively.

4. State the rule for finding the area of a Trapezium which may be inscribed in a circle, the lengths of its sides being given.

5. If the side of a square be 20 feet, find the circumference of the circumscribed circle. Explain the process.

6. State and give reasons for the rule for finding the circumference of an ellipse whose transverse and conjugate diameters are given.

7. Find how many cubic feet of material there are in a hollow cone, t h radius of whose base is 3 feet and whose height is 4 feet, the thickness of the material being 2 inches.

8. Find the area of the convex surface of the segment of a sphere whose radius is 18 inches, the height of the segment being 8 inches.

9. There are 2 cubes, the linear side of one of which is 3 inches longer than that of the other, and the superficial area of the large cube exceeds that of the smaller by 15 square feet 54 square inches. Find the length of a side of each.

10. Find the number of shot in an unfinished square pile, a side of whose base contains 24, and a side of the highest course 17.

BOTANY.

SATURDAY, JUNE 3RD :—MORNING, 9 TO 12.

Examiner,.....PRINCIPAL DAWSON.

1. Describe the germination of a plant.

2. Explain the differences in the structure of the Embryo.

3. What is an Excurrent stem, an Axillary Bud, Bud Scales?

4. Explain the functions of the Root.

5. Describe the structures in a leaf, and explain their action on the air.

6. Mention the several parts of the Stamen and Pistil, and their uses.

7. Describe an Achenium, a Samara, a Driupe and a Silique.

8. Explain the differences in the stems of Endogens and Exogens, and the relations of these to other parts of the plant and to classification.

9. Explain the terms, Genera, Species, Order.

10. Describe the parts of the flower exhibited.

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